McMANIS ASSOCIATES, INC.

MANAGEMENT AND RESEARCH CONSULTANTS

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A STUDY TO IDENTIFY THOSE UNIQUE ASPECTS OF COASTAL ZONE MANAGEMENT WHICH OCCUR IN URBAN AREAS

1/ OCTOBER 1975

3/ Office of Coastal Zone Management
National Oceanic and Atmospheric Administration
Contract No. 4-36766

McManis
ASSOCIATES, INC.

Office of Coastal Zone Management
National Oceanic and Atmospheric
Administration
U.S. Department of Commerce
3300 Whitehaven Street, N.W.
Washington, D. C. 20235

Gentlemen:

We are pleased to submit our final report in accordance with our contract, No. 4-36766.

BACKGROUND AND OBJECTIVES OF THE PROJECT

The coast of the United States is, in a general sense, the country's most valuable geographical asset. Yet it is probably the asset most threatened with deterioration and irreparable danger. Nowhere is this more apparent than in our urban centers within the coastal zone. It is here that intensive concentrations of population exist, demands upon the land and water to support industrial growth and economic development are most acute, resources to provide life support systems must be marshalled, and transportation and recreational needs are burgeoning. To get a handle on the extent of these demands, and the extent that existing institutions manage and control these resources with the coastal zone, the Office of Coastal Zone Management wisely decided to commission a study to:

- *Identify the characteristics of coastal zone management in urban areas.*
- *Identify those institutions and institutional arrangements in and between states, regional county and city governments and special districts.*

Further, to begin to understand the needs of urban planners in the coastal zone, the contractor was to assess their needs for additional education, information and/or experience to participate more fully in planning and controlling activities in the coastal zone.

To these ends, McManis Associates, Inc. was selected on a competitive procurement and awarded a contract on June 30, 1974.

CONDUCT AND METHODOLOGY OF THE PROJECT

As originally proposed and as accepted by your Office, we conducted the project in four discrete phases of work, each including several component action steps.

During Phase I, we conducted a detailed research of appropriate background materials relating to the conditions in the coastal zone and those leading up to the passage of the Coastal Zone Management Act. Further, we conducted a series of extensive issue-mapping tasks through in-depth interviews with several Federal agencies and representatives of some of the leading public interest groups in Washington, D.C. This led to the specification of a diagnostic checklist of issues to be explored with practitioners and local officials. Finally, we gained agreement with your government technical representative on criteria for selecting the sites for our field survey, the proposed sites, and the information to be collected at each site. This phase of work was completed in September, 1974.

This phase led in turn to the actual site visits. To this end, we completed our research on each site in Washington, D. C. before actually proceeding to make our visit. Further, to ensure our instruments and evaluation criteria/information was responsive to the conditions likely to be found locally, we field-tested each on our visit to our first site: Wilmington/New Castle County, Delaware, where all three team members joined in this visit. The remaining six field visits were scheduled and completed in October, 1974. This phase culminated with a debriefing of our key findings to members of your staff.

From November, 1974 to January, 1975, we planned to tabulate and analyze all data. Various analytical pieces were completed and sections of the final report were framed during this third phase of work.

Finally, we have completed several drafts of the final report, plus progress memoranda, and have submitted them for your review.

WHAT WE FOUND

Our first and most obvious finding is that, aside from the differences in the size and potential effect of cities upon the coastal zone, the sheer number of agencies, both at the state and local level, responsible for impacting upon and planning and controlling resources and activities in the urban coastal zone has produced fragmented action. Likewise, much of the institutional response is bifurcated along land use and water use lines, reflecting in turn more control at the state level over activities on the seaward side and regional, county and city agencies (including special districts like port authorities) controlling activities and developments along the landward side and adjacent physical developments. This multiplicity of agencies, with different interests and historical focus,

has, we have found in these urban centers, exacerbated the task of gaining agreement on the values, aims and outcomes to be achieved in the adjacent coastal zone. By comparison the planning for and controlling of the coastal zone in rural areas is vastly simpler.

From our extensive discussions with a multiplicity of officials with widely-differing opinions and interests, most agreed that management of coastal zone activities can only be strengthened in the urban area through: (1) greater recognition of the complexity of the task by states and by giving local-elected officials and coordinating bodies greater say in planning in their own areas, producing in effect a two-tier program: one for the urban area with lesser state intervention and one for the rural area with potentially sizeable state action, (2) the historical bias of local officials and land use planners for preserving land values and of certain state officials (such as recreation and water resources officials) for minimizing access and use of the water has to be bridged through opening up communication channels, leading to greater consensus-building, and (3) the necessity for merging of separate state planning and administrative agencies – either organizationally or process-wise – to gain unanimity of action in responding to the conditions in the coastal zone and the Section 305 coastal zone management plan.

Symptomatic of the nature of the institutional problem is its effect upon those charged with planning in the coastal zone. Again, reflecting the historical bias of their parent agencies, local planners, with exception of some regional planning groups, have a focus and a mindset almost exclusively for developments and zoning on the landward side of the coastline. The reverse is true for those doing almost exclusively planning for activities on, in and under the water. We believe that any preparation of land use planners for water use applications, and vice versa, can best be achieved by gaining access to those professional associations to which training and credentials are obtained. The existing network of Sea Grant Program institutions could help prepare for this transitional training for water use planners by introducing training in land use applications and the nuances of zone administrative and physical development on the adjacent land. Only through such a strategy do we believe that the segmented approach to comprehensive land use – water use planning can be mended and changes institutionalized.

OUTLINE OF THE REPORT

We have organized the attached report according to the logic scheme implied in your original work statement, and provided herein a detailed discussion of the observations expressed in this summary throughout the body of the report, divided into Chapters as follows:

I. Background

II. An Examination of Institutional Arrangements, Resources and Management Capacity.

III. Guidance from this Study on Elements of Coastal Zone Management and Institutional Arrangements to Address those Elements

IV. Needs of Urban Planners in Coastal Zone Management

The full case studies on each of the seven sites visited is contained in *Appendix A*.

In addition, in the course of our study we found it necessary for our own understanding of coastal zone management and of what's been published by producing a selected bibliography, contained in *Appendix B*. A Coastal Terminology section, which also aided our understanding, was prepared and is provided in *Appendix C*. As you requested, we have provided a listing of officials and planners we interviewed during the course of this study, in *Appendix D*.

* * * * *

We have appreciated this opportunity to serve the Office of Coastal Zone Management and hope that this report, plus its underlying analyses, has advanced the state of knowledge of how jurisdictions and urban officials can interact and begin to manage activities better in our nation's coastal zone.

Respectfully submitted,

McManis Associates, Inc.

Gerald L. McManis
President

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CHAPTER I

BACKGROUND

I. BACKGROUND

A. BACKGROUND AND OBJECTIVES OF THE PROJECT

The coast of the United States is, in a general sense, the country's most valuable geographical asset. Yet it is probably the asset most threatened with deterioration and irreparable damage.

This deterioration is due to a number of competing forces:

- *Presently, 53% of our nation's population lives in cities and counties within fifty miles of our coastline. This places an overwhelming burden on the coastal zone for water, land, sewage disposal, port facilities, energy, etc. By the year 2000, this is expected to increase to 80%, or 225 million people.*

- *Recreational demands for the limited space are expected to increase sharply. At this time, 51 million people use the recreational aspects of the sea coast and this is expected to increase by 19 million in two years.*

- *In the next two decades, new power plants alone, in response to the compelling need for additional energy-generating capability, will take up 200 square miles of land, and long-range transmission lines will need nearly 5,000 square miles of right-of-way. Much of this will find its way, out of economic necessity, to the coastline.*

- *Local jurisdictions, strapped for additional tax revenues, have promoted the development of their areas. In California, subdivision has reached a rate of 100,000 units a year. In Florida, 200,000 new recreational and retirement subdivision lots are registered every year. In Chicago's northwestern suburbs, for example, homes and apartments have been built on flood plains subject to recurrent inundation.*

- *Over 113 different federal capital expenditure programs are able to make unilateral and unchecked decisions on development of our nation's coastlines. Even where a jurisdiction might have restricted certain forms of development, the federal government has often preempted the locale's prerogatives.*

- *The Santa Barbara coastal oil spills have underscored the plight of the coastal zone. The potential danger from this source is even more prevalent with the vastly increased number of oil rigs contemplated on the Gulf Coast and the expected increased activity on the East Coast.*

- *Until the enactment of the Marine Protection, Research and Sanctuaries Act of 1972 (P.L. 92-532), our nation's cities had indiscriminately dumped in the coastal zone. Since then, cities like New York have been compelled to find other disposal sites. Further, many coastal cities encounter sand, limestone and gravel soil conditions at their landfill sites, producing leachate and the contamination of ground water with carbon dioxide gas. Eventually, this contaminated water winds up in our streams, rivers and oceans. The disposal of semi-liquid sludges has also increased enormously with the vastly expanded municipal treatment facility capacity.*

- *The increased population, economic activity and demands for low-cost, accessible transportation routes have reduced the availability of virgin coastal areas. In the period of 1922-1954 over one-quarter of the salt marshes were destroyed by filling, diking or draining, or by constructing walls along the seaward marsh edge. In the following ten years, a further 10% of the remaining sea marsh between Maine and Delaware was destroyed.*

- *Traditional coastal zone management efforts have suffered from at least three problems. First, they separated projects, such as port development, draining of wetlands and growth of new communities, from controls over these projects, such as dredging controls, water quality standards and land use restrictions. Different agencies dealt with separate incidents of control. For example, in Oregon there are eight different agencies responsible for different parts of the coastal zone resources. Secondly, traditional coastal zone management focused on single resources: fish, ground water, oil production, agriculture, etc. Finally, coastal zone management lacked long-term and short-term goals.*

For these and other reasons, a new national "land ethic," directly affecting the coastal zone, has appeared. This ethic is based on the widespread realization that -- as with clean air and clean water -- the supply of desirable land is limited and dwindling rapidly, and that measures to husband and protect it seem called for. Further, land must be viewed not as a commodity to be bought, sold or consumed, but as a finite resource which must be managed in the interests of future generations.

Land use regulation, or zoning, has traditionally been a local matter, a constitutional power delegated by the states to counties and cities. But zoning is far from widespread. Of some 60,000 jurisdictions in the country, only 5,000 have instituted any form of zoning. Nor does zoning necessarily mean land planning. As now practiced, it is primarily a device for protecting selected established land values.

Of greater significance, however, many of today's land problems are beyond the capacity of local jurisdictions, as now constituted. The National Commission on Urban Problems reported in 1968: *"In large urban areas, local government boundaries rarely reflect the true economic and social watersheds. The present indiscriminate distribution of zoning authority leads to incompatible uses along municipal borders, duplication of public facilities, attempted exclusion of regional facilities."*

More recently, our nation has also had to face the fact that there is not enough energy to go around. For a variety of domestic and international reasons, our country has not kept pace with the burgeoning demands for energy. This has produced some concern about our ability to maintain our current high standard of living. But, more specifically, the provision of adequate, low-cost, clean energy – formerly a local issue – has become an appropriate concern for the states and the nation.

These and other factors have obligated state governments to reclaim, in effect, some of the land use authority once broadly delegated to localities. Already in 1973, seventeen state legislatures have passed comprehensive land use regulations to this end. This pullback of local autonomy has affected local controls in their broadest sense: zoning, shoreline, wetland and flood plain regulation and scenic river preservation. It has also covered "critical areas": farmland and real estate development regulations; highway, industry and airport siting; strip-mining and erosion controls.

Supporting this new ethic, the Commission on Marine Science, Engineering and Resources (the so-called Stratton Commission) recognized the overriding importance of the coastal zone and its relationship to land use management. The Commission designated one of its panels to report on the coastal zone. The report, *Our Nation and the Sea*, set out a definitive blueprint for action for the United States.

From this work a number of federal land use and environmental laws were enacted, with only one major piece yet to be passed, the Land Use Policy and Planning Assistance Act (S. 268). In the 92nd Congress, three major pieces of legislation were enacted: the Marine Protection, Research and Sanctuaries Act of 1972 (P. L. 92-532); the Marine Mammals Protection Act (P.L. 92-522) and the Coastal Zone Management Act of 1972 (P.L. 92-583).

The last of these is designed to give states new impetus in developing programs for planning and managing the coastal land and water resources. President Nixon's statement

on signing the act points out that it "*recognizes the need for carefully planned, comprehensive management programs to ensure the most rational and beneficial use of the coastal zone . . . (and) that the states can usually be the most effective regulators of such a planning process.*" Further, the President instructed the Secretary "*to carry out this statute in a way which focuses federal efforts on the adequacy of state processes rather than to become involved in the merits of particular land use decisions.*"

While the threat to the entire coastal zone has been well documented, the immediate threat – its magnitude, its scope and specific ways of dealing with it in the context of the division of powers between the Federal government, state governments and local general-purpose and special district governments – within the urban area has not been thoroughly documented.

The obvious effects of population and its requirements for life support processes upon the coastal zone can easily be imagined. But the secondary and tertiary effects of industrial development, transportation, housing and community services and recreation are not as well known. For example, if an urban area has twice as much housing than another area, what does this mean upon the controls exercised on the coastal zone and the use or preservation of the resources within that coastal zone?

Likewise, the effectiveness and interlocking relationship upon state and local controlling agencies were also widely speculated about. More specifically, what did the presence of a port authority do to the extent of planning, control and coordination of resources within the coastal area? How was the management of the coastal zone enhanced? Were the values, interests and institutional loyalties easier to ameliorate and compromise with the presence of these institutions, or was it harder?

It was to the resolution of these ends that the Office of Coastal Zone Management sought outside professional assistance. Specifically, the contractor was to:

- *Identify the characteristics of coastal zone management in urban areas, particularly in the use of water;*
- *Identification of the institutions and the institutional arrangements in and between state, regional, county and city governments and special districts in the urban coastal zone, and how they can contribute to or detract from fulfillment of CZM objectives;*
- *Recommendations for the development of the urban portion of a coastal zone management program; and*
- *Recommendations on the education, information and experience necessary for urban planners to participate in coastal zone management.*

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B. CONDUCT AND METHODOLOGY OF THE PROJECT

As originally proposed and as accepted by the government technical representative, the project was divided into four phases, each including several tasks. Briefly they were as follows:

PHASE I - BACKGROUND RESEARCH AND PROJECT PLANNING

Phase I involved getting on the same wave length as various coastal zone interests. In order to take advantage of published material and to speak the same language, we began a search of available literature and a layman's dictionary of coastal terminology.

To further our basic understanding, a series of interviews were planned. Recognized coastal zone experts, officials of federal agencies with an influence in the coastal zone, congressional staff and key legislative staff of the public interest groups (National Governor's Conference, Council of State Governments, National Association of Regional Councils, National Association of Counties, National League of Cities, U. S. Conference of Mayors and International City Management Association) were asked the following questions:

1. *What are the characteristics of coastal zone management in urban areas?*

2. *What are state, metropolitan and local planning efforts lacking in management of the urban coastal zone?*

3. *What local governmental institutions are involved in urban coastal zone management and how do they interact with state and federal agencies?*

4. *What do state governments need to know about local government powers and practices in land and water use?*

5. *What training, information or experience should urban planners have in order to participate in coastal zone management? and*

6. *Where are examples of local institutional management of the urban coastal zone, and who should we interview?*

From these initial interviews, enough information was collected to crystalize the project goals, develop study site criteria and apply that criteria to the thirty-three places which had been suggested (states, counties and cities in combination).

Of those thirty-three suggestions, eighteen were chosen by the consultants. A background paper was developed on each which included the following information:

a. *Geographic location,*
b. *Receipt of CZMA Section 305 grant,*
c. *SMSA population of 1,000,000 as of 1970,*
d. *State, regional and local planning agencies,*
e. *Use of land and water in urban coastal zone,*
f. *State legislation providing for coastal zone management, and*
g. *Previous knowledge of area, programs or personnel.*

Sites were listed by geographic regions, under the consideration that a primary example of urban coastal zone management, suitable for replication, would emerge from each region.

Selected were these urban areas:

- *Seattle – King County – Washington*
- *San Deigo – San Diego County – California*
- *New Orleans/Orleans Parish – Louisiana*
- *St. Petersburg/Clearwater – Pinellas County – Florida*
- *Wilmington – New Castle County – Delaware*
- *Portland – Cumberland County – Maine*
- *Detroit – Wayne County – Michigan*
- *San Juan – Puerto Rico (soon afterward dropped as a site)*

A short description of each and its significance as an urban center in the coastal zone is presented next.

SEATTLE - KING COUNTY - WASHINGTON

From the deep water harbor of Elliott Bay, through Puget Sound, Admiralty Inlet and the straits of Juan de Fuca, a link of about 125 miles, lies the Pacific Ocean, Seattle's avenue to Alaska and the Far East. Distances between Seattle and Yokohama are much shorter than between Yokohama and any other large U. S. mainland port.

In pre-nylon days, when speed was of the essence, the fastest transcontinental trains in the U. S. ran between Seattle and Paterson, N. J., then the silk stocking capital of the world.

All shores of Elliott Bay are occupied by the port function as are the banks of the lower Duwamish River and the Lake Washington Ship Canal. There are many other ports along the hundreds of miles of inlets, passages and "canals" (i.e., channel) such as Bremerton, the naval shipyard, on Rich's passage and Bangor on the Hood Canal but nowhere is there such a concentration as on Elliott Bay.

Elsewhere on Puget Sound the waters and shores are used for housing and recreation. Shoreside parks, beaches and public boat ramps are numerous. North of Fort Lawton the Port of Seattle has built a 4,440-foot breakwater in Shilshole Bay, forming a rather large boat anchorage for pleasure craft. An undersea gardens aquarium is adjacent.

The Lake Washington Ship Canal, with its two parallel locks, spillway, dam and fish ladder, connects Puget Sound with Lake Washington. The canal carries pleasure craft primarily, followed by commercial craft, some ocean-going, and log rafts.

The waters and shores of Lake Washington are overwhelmingly residential and recreational. The western shore south of Union Bay is an almost continuous ribbon of parks, public beaches (the lake water is somewhat warmer than that of the sound), fishing piers, marinas, boat ramps, yacht clubs and a seaplane landing area. Offshore are a hydroplane course and the University of Washington crew racing area.

The eastern shore tends to have fewer public beaches and piers while on Mercer Island the beaches and piers are private.

There are a number of smaller lakes such as Lake Sammamish to the east of Lake Washington; Lake Union, an inlet of the ship canal with port facilities and a seaplane landing; and Green Lake with public beaches, piers and an aqua theater.

Seattle's fishing fleet, reportedly the largest on the Pacific Coast, does most of its fishing away from Seattle waters although the catch is processed and marketed on the piers of Elliott Bay.

Ship building, a thriving industry during World War II, has been reduced to the building, maintenance and repair of fishing boats. This statement does not apply to the naval facility at Bremerton on the western side of the sound.

SAN DIEGO - SAN DIEGO COUNTY - CALIFORNIA

Of San Diego's two bays, Mission Bay to the north is used entirely for recreational purposes. There are marinas, yacht clubs, beaches, both on the bay and ocean shores and a Sea World Aquatic Museum, a Marine Land. There are many facilities for sports fishing

but the actual fishing takes place in the Pacific off the coast of Baja California with bass, albicore, tuna, among others being the game.

Commercial fishing is centered on San Deigo Bay, where the largest tuna fleet in the country docks. Tuna fishing takes place, or used to, south of San Diego as far as Ecuadorian and Peruvian waters. Since Ecuador and Peru have been seizing and impounding tuna boats, part of the fleet now fishes in North Pacific waters off Japan. The tuna canneries are located adjacent to the tuna docks.

The east shore of San Diego Bay is predominantly commercial docks with the exception of a yacht club and a few marinas. The west shore, with the exception of the naval facilities, is all recreational. There are yacht clubs and marinas on the bay side and beach on both the bay and the ocean.

One unusual recreational activity is whale watching. The whales going south to winter in the Gulf of California, pass close to San Diego's beaches.

In La Jolla, a northern residential section of the city, is located the Scripp Institute, one of the country's leading sites of oceanographic research.

Like other Southern California cities, the rivers of San Diego have little recreational value as they are dry in the summer and often raging torrents in the winter.

NEW ORLEANS - ORLEANS PARISH - LOUISIANA

Based on tonnage, New Orleans ranks, after New York City, as America's second port and water-transport is its leading function. Its relationship with water is very intimate.

New Orleans proper has an area of 364 square miles, of which surface 46% is water. The city is only feet above the mean level of the Mississippi and the water table so high that some cemeteries are built above ground.

The port area extends 51 miles along both sides of the Mississippi and along both sides of the 11 mile Inner Harbor Navigation Canal which runs between the river and Lake Pontchartrain. Traffic also is carried on the Gulf Tidewater Channel and the Intracoastal Canal but the main transport stream is the 100 mile stretch of the river between New Orleans and the Gulf of Mexico. The 100 miles is the length of the channel; actually the city has expanded residentially to the shores of Lake Borgne, an arm of the Gulf.

Recreational activities, swimming, sailing and yachting are centered on Lake Pontchartrain and to a lesser extent Lake Borgne. One of the first railroads in the U.S., west of the Appalachians ran between New Orleans and the beach and boat house on Pontchartrain.

One access to the Gulf through Lake Borgne, which is not a lake, is into Mississippi Sound, Cat Island Channel, Chandeleur Sound and finally the gulf. Lake Borgne is a good sports and commercial fish area.

Shrimp and other shell fish are packed and shipped from New Orleans. The ship building industry is mostly confined today, to the construction and maintenance of fishing boats.

ST. PETERSBURG/CLEARWATER - PINELLAS COUNTY - FLORIDA

These cities lie on a peninsula between Tampa Bay on the east and Boca Ciega (trans. Blind Mouth) Bay on the west and has 33 miles of waterfront, all on the two bays. In addition there are, at a short distance, miles of beaches at St. Petersburg Beach, a separate municipality and Madena Beach on a barrier island that separates Boca Ciega Bay and Clearwater Harbor from the Gulf of Mexico.

In St. Petersburg's central business district on Tampa Bay, there are fishing piers, a large public marina, a Bayfront Center, which is a large pier that contains an auditorium and an arena and the commercial docks. Elsewhere on Tampa Bay there are yacht clubs, private marina, fishing piers and beaches both private and public.

Big game fishing, from boats running out of St. Petersburg, is done on the gulf with tarpon and marlin, among others being the game.

Commercial fishing is limited to some crabbing, the dredging of oyster and clam beds in Tampa Bay and sponge fishing in the gulf done by the Greek colony in Tarpon Springs.

This area has diurnal tides, that is, one high and one low tide every twenty-four hours.

WILMINGTON - NEW CASTLE COUNTY - DELAWARE

White Clay and another creek in western Wilmington offer a short period of trout fishing but other than these, there is little water-borne recreation along the coast. Wilmingtonians interested in water sports have to go to New Castle, Lewes or the beaches if they want to fish or swim.

The waterfront along the Delaware is occupied by industry and docks, the latter importing, among other things, large quantities of frozen beef from the Argentine and Fiat automobiles, already assembled, from Italy.

The Christina River has commercial dockage along its lower reaches and Brandywine Creek has parks along its banks.

By comparison to the other sites, use of the urban coastal zone for extensive housing development is minimal.

PORTLAND - CUMBERLAND COUNTY - MAINE

Portland, like many other New England ports, has a three-century history of fishing and shipbuilding -- most of the latter today confined to fishing boats.

Roughly the city of Portland lies with the Presumpscot River on its north and west, Casco Bay on the east, and the Fore River on the south. The last-named body of water is an inlet or small bay flowing into Casco Bay. Almost completely surrounded by the city is Back Cove, a tidal pond, also connected to Casco Bay. Back Cove is a mud flat during low water, a fact not considered a drawback as it is girded by an attractive residential area.

Recreation centers on Casco to the north and east bay, the Calendar Islands in the bay and to the south to Cape Elizabeth. Both sport and commercial fishing take place with the latter taking fin and shell fish. Some of the take is processed and canned in Portland, while some, notably lobsters are exported live.

The port facilities line both sides of the Fore River and are busy enough to make the area one of the major ports of the U.S. Portland achieved a large tonnage status when it became an out- or fore-port for Montreal, exporting Canadian wheat during the months when the St. Lawrence is frozen. Wheat has been replaced in importance by crude oil which is piped from Portland to the Montreal refineries on a year-round basis.

DETROIT - WAYNE COUNTY - MICHIGAN

The waterway between Lakes Huron and Erie consists of, from north to south, the St. Claire River, Lake St. Clair, the Scott Middle Ground, the channel between Belle Isle and Detroit, and the Detroit River.

The waters of Lake St. Clair are predominantly recreational and high-class residential; in fact, the shore of St. Clair Shores, a northern suburb, resemble the coast of Florida at Palm Beach as far as the number of piers are concerned.

The U.S. bank of the Detroit River toward Lake St. Clair is a combination of recreational (parks, yacht clubs, etc.) and transportational facilities. Belle Isle is entirely recreational, marinas, golf courses, etc., while the shore south of Belle Isle, including Gross Ile (not to be confused with the various Grosses on the shores of Lake St. Clair), is transportational and industrial.

The lower reaches of River Rouge, a tributary of the Detroit River are used for transport, especially to the Ford River Rouge plant, and the upper reaches are mostly recreational, long strings of parks and golf courses with some residential.

PHASE II - STATE AND LOCAL INTERVIEWS

In order to get in-depth information about the sites, appointments were made with the Washington, D. C. representatives of: five cities (Seattle, San Diego, New Orleans, Detroit and San Juan); three counties (San Diego, New Castle and Wayne); and Governor's staff of several states (Maine, Puerto Rico, Michigan and Florida).

From these meetings such vital information as local political and technical contacts and the history of relationships between the state, city, county, regional planning organization, special districts and port authorities was obtained.

Our next visit to the Office of Coastal Zone Management was spent researching relevant pieces of correspondence about the sites or people we might want to meet. An extensive review was made of all Section 305 applications from our eight states and noting the names of individuals we might contact.

Of particular interest in the Section 305 applications was the definition of the coastal zone, state legislation which authorized planning or regulation of coastal land or water, various state agencies which had coastal zone responsibilities and anticipated relationships with local governments in coastal zone management.

This data, combined with information from the second round of interviews and the correspondence search allowed us to develop a fairly accurate list of interview candidates in the sites and a detailed questionnaire (interview format).

The Request for Proposal also required the contractor to identify the significant gaps in knowledge experienced by urban planners in the preparation of a coastal zone management program. Recommendations on education, training, literature and other useful experience which would fill this gap for urban planners was requested on several occasions by the CZM contract staff.

It was with this need in mind that the first and final questions on each interview format dealt with the education and experience of each individual and their recommendations for training and literature necessary in the management of the urban coastal zone.

Recognizing five different levels of institutional coastal zone management, we developed five interview formats. All included basic questions about professional experience and perceptions of the coastal zone. Formats differed in the expectations and reactions of an individual from one institution of government commenting on the activities of another (i.e., local versus state; regional versus special district).

It was anticipated that between twelve and fifteen individuals would be interviewed in each site as follows:

State	• Director of CZM designated agency or State Planning Director
	• Chief CZM Planner
	• Director of Water Resources Agency
Local: County	• County Executive or Board Chairman
	• Chief Administrative Officer
	• Director of Planning or Environment
Local: City	• Mayor
	• City Manager
	• Director of Planning
Regional	• Director of Regional Planning Organization/ Council of Governments
Special District	• Director of Port Authority
	• Director of Water/Sewer District
	• Director of Miscellaneous Special District
University	• Chief CZM architect or Sea Grant Director

Our basic assumptions about urban coastal zone management were given a trial run in the Wilmington – New Castle County – Delaware site. Many of the individuals there had difficulty in recognizing the impact of federal aid programs which we suggested were operational in Wilmington. Further, although the discussion with the University/Sea Grant staff was technically interesting, some of the questions about local government powers and relationships went unanswered. As was to happen in every interview thereafter, the most difficult question to answer was: "What kinds of information do local planners need in order to make coastal zone management decisions." The format was amended to reflect these deficiencies.

Following our demonstration site visit to Wilmington, each consultant set up appointments (telephone calls and letters of confirmation) in all the other sites except San Juan, Puerto Rico, which was dropped from the study.

The twenty-five questions asked of nearly 100 people over the next month of site visits covered more than the initial RFP requirements and included:

1. *The unique program and operating aspects of managing and controlling activities in the coastal zone;*

2. *The perceived intergovernmental problems of local officials in the management of the coastal zone;*

3. *The statutory authorities/powers of local governments, regional agencies and special service districts in land and water use;*

4. *The implied responsibilities of local governments, regional agencies and special districts as a result of state and federal programs (HUD, EPA, corps, DoT, NOAA);*

5. *The institutional arrangements in urban areas for the management of the coastal zone; and*

6. *The information and training requirements of urban planners, as related to the planning requirements in the coastal zone, in coastal zone management.*

PHASE III - COMPILATION OF DATA

After each of the field team members had an opportunity to collect their findings and summarize their understanding of each site's contribution to the project's cumulative knowledge, a detailed debriefing of all was conducted. This was done to: (1) ensure that the field fact-finding was uniform and consistent, (2) provide an opportunity for each team consultant to learn from each other and each site's contribution to the project's findings, thereby sharpening up the quality of each consultant's case study, (3) begin to generalize our findings and observations across several sites for the sake of drawing project-wide and noteworthy conclusions in support of the project's objectives.

PHASE IV - PROGRESS MEMORANDUMS AND FINAL REPORT

In order that there was a periodic check-up between the consultants and the contract staff, at least one meeting and/or progress report occurred monthly during the study.

Mutual feedback took place in:

- *Selection of sites and criteria;*

- *Coordination with staff of other federal agencies;*
- *Review of coastal terminology;*
- *Review of interview formats;*
- *Background information on sites;*
- *Suggestions on key state personnel to be interviewed; and*
- *Development of final report format.*

On almost all occasions, contract staff suggestions were incorporated into the work plan. Several exceptions should, however, be noted. The information gained in on-site interviews could not be duplicated in telephone conversations or correspondence. Likewise, the characteristics of the coastal zone management unique to island communities (Puerto Rico or Hawaii) are not reflected in this report.

The final report was prepared chapter-by-chapter and presented to the government technical representative for his consideration. Based upon his feedback and that of his staff, this report was assembled.

CHAPTER II

AN EXAMINATION OF INSTITUTIONAL ARRANGEMENTS, RESOURCES AND MANAGEMENT CAPACITY

II. AN EXAMINATION OF INSTITUTIONAL ARRANGEMENTS, RESOURCES AND MANAGEMENT CAPACITY

A. INTRODUCTION

The large and rapidly growing concentrations of people and economic activity in the coastal zone are producing a range of pressures upon its resources. Demands for water-related public and private goods and services (especially energy) will become greater due to increases in the absolute number of humans in proximity to the coast.

Decisions concerning the use of the coastal zone are now made by a variety of governmental units, many of which are at the local and substate level. Coastal cities and counties exercise considerable control through land use and zoning over what happens in the land-water interface within their boundaries. Special districts, such as port authorities, largely determine policies about specific functional uses. However, both local governments and special agencies must comply with state and federal programs which have a major influence in the coastal zone through regulating public and private activities and by providing financial incentives to substate and local government agencies.

Many more decisions about the disposition of the coastal zone are made by the private sector in market transactions. Finally, both federal and state courts, exercising adjudicatory powers, play a significant role in determining coastal use.

Such is the state of institutional arrangements and resources within the urban coastal zone. The multiplicity of authorities is often the reason given for causing many of the problems in the coastal zone. Hopefully, a management scheme which coordinates the various resource allocations, public and private, can be advanced.

The approach taken in the Coastal Zone Management Act of 1972 is to give state governments the primary planning and coordination responsibility and to encourage them to cooperate with regional and local governments in regulating the coastal zone.

This federal transferrance of power to state governments has necessarily created conflicts between states and localities, particularly apparent in urban cities and counties. Although the state is equipped to provide the basic framework for management of the coastal zone, it must accommodate the variances in powers and responsibilities of local general purpose governments, special districts and authorities, and federal decisions, all of which come together in urban areas.

The following chapter is a discussion of the institutional arrangements, resources, and management capacity found in seven urban coastal study sites. In each site, at least one level of state, county and city level government was interviewed, including: the state program development agency (which received federal coastal zone planning funds),

other state agencies which have responsibilities in land or water management, regional planning organizations, counties, cities, and special authorities or districts.

Matrixes on state and local government relationships are attached as supplements to the written narrative and serve to show the interrelationships and multiplicity of state and local agencies controlling the land and water resources in the coastal zone.

B. LEAD STATE AGENCY FOR PROGRAM DEVELOPMENT

Guidelines for the implementation of the Coastal Zone Management Act of 1972 directed the Governor of each coastal state to designate the appropriate lead agency to receive federal coastal zone management funds.

The State Planning Office (SPO) was the recipient agency in three of the seven study sites. Traditionally, the State Planning Office is a part of the Governor's executive staff, rather than a line department or cabinet agency. The three SPO's — Louisiana, Delaware, and Maine — differ in power and position.

LOUISIANA STATE PLANNING OFFICE

One of more than 200 state agencies under a recent constitutional reorganization, the Louisiana State Planning Office is physically removed from the state capital complex, and psychologically from the direct attention of the chief executive. Rather than having functional divisions of responsibility, the Louisiana State Planning Office currently conducts research on six projects. Several projects are ongoing (natural resources, economic sufficiency, housing and information services), while the other projects are terminal (New Orleans metropolitan area transportation and growth patterns) as a result of the funding source which supports the research. The Coastal Resources Program, originally initiated by a Governor-designated body, the Louisiana Coastal Commission, is now a part of the SPO's growth patterns project.

Because of the prior experience and work of the Louisiana Advisory Commission on Coastal and Marine Resources (who developed the "Louisiana Wetlands Prospectus" under a grant from the State Planning Office), the Commission contests the right of the State Planning Office to receive federal coastal zone monies and to execute a state plan.

Buoyed by the receipt of federal assistance, the SPO envisions making the Coastal Resources Program an independent project, separate from growth patterns. Although some funds and planning responsibility will be shared with the Coastal Commission, the SPO maintains that prepared or not, it is the appropriate agency to receive planning funds and administer the coastal zone management program.

The functional areas overseen by the Louisiana State Planning Office are:

- *Natural resources;*
- *Economic sufficiency;*
- *Housing;*
- *Information services;*
- *Transportation (New Orleans metro area only); and*
- *Growth patterns (including coastal resources program).*

Further diffusing the responsibilities and power of the Louisiana State Planning Office is the intragovernment arrangement with the Department of Public Works over administration of the federal comprehensive planning grant (Section 701) from HUD. Previous to 1974, the grant was received jointly by both departments. Under a recent executive order, the HUD 701 funds are being diverted to the Louisiana Commission on Intergovernmental Relations. As the official state clearinghouse, the Commission distributes these planning funds to the multi-parish non-metropolitan regional planning commissions. In 1973, the Governor designated state planning districts, whose boundaries are co-terminous with the regional planning commissions with one exception.

New Orleans is a part of the Regional Planning Commission for Jefferson, Orleans, St. Bernard and St. Tammany Parishes. The only metropolitan designated RPC in Louisiana, it receives 701 planning funds directly from HUD and is not responsive to the state Commission on Intergovernmental Relations. State Planning District #1 takes in five parishes, the four of the RPC and Plaquemines Parish. Notorious throughout Louisiana state history and governmental organizations, Plaquemines Parish officials refuse any federal assistance, even directly through an RPC.

DELAWARE STATE PLANNING OFFICE

The Delaware State Planning Office resembles a cabinet-level department, the Director being in frequent communication with the Governor. Access between state administrative offices and the chief executive is due partially to geography (Delaware is the second smallest state) and partially to fewer and consolidated state agencies in close proximity to one another.

There are several unique features about the State Planning Office in Delaware. Far advanced from land use planning, the SPO is responsible for both environmental and human

services policy development, and serves as counsel to the Governor in these areas. The office is also charged with the preparation of the Capital Improvements Program, which gives it implied, if not actual, authority over other departments and agencies of state government.

Five functional sections of the SPO provide research, planning and technical assistance. Somewhat confusing is that the implementation of Delaware's Coastal Zone Act of 1971 has been assigned to the SPO's Environmental Policy and Coordinative Planning Section, one of the five. However, it is actually staff assigned to the Office of the Director that administers the coastal zone management program. Elevation of the program to the SPO Director's level gives coastal zone planning more political prominence within state government and furthers the entrenchment of program into the State Planning Office, rather than the Department of Natural Resources and Environmental Control, the land and water management agency which is somewhat a competitor of the SPO. It is felt that eventual administration of the Delaware Coastal Zone Management program, the plans of which are now in progress, will fall to the Department of Natural Resources and Environmental Control.

The divisions of the Delaware State Planning Office are:

- *Environmental Policy and Coordinative;*
- *Community Development Services;*
- *Population and Economic Analysis;*
- *Human Services Policy and Planning; and*
- *Office of the Director (Capital Improvements Program and Coastal Zone Administration).*

Because there are only three counties in the state of Delaware, state planning districts are really unnecessary. Kent and Sussex counties receive direct planning assistance from the state.

Wilmington and New Castle County, containing more than two-thirds of the state population, are the core of the Wilmington Metropolitan Area Planning Council. This multi-state planning council includes Cecil County, Maryland and Salem County, New Jersey, its power and funds coming directly from the federal government.

MAINE STATE PLANNING OFFICE

Maine's State Planning Office is the most typical of other state planning operations. It is part of the executive branch and has clear access to the Governor.

By virtue of the statutory requirements in the Mandatory Shoreline Zoning and Subdivision Control Law of 1971 and the Coastal Wetlands Act of 1971, the State Planning Office institutionalized coastal planning before the passage of federal legislation. The zoning law required municipalities to prepare comprehensive plans and complementary zoning ordinances for the protection of their shorelands and wildlife. Failure to prepare acceptable plans resulted in an SPO-imposed moratorium on all construction and development. Thus a working relationship between the state and municipalities was established in coastal zone management.

The Coastal Planning Division is one of five divisions of the SPO through which planning and management services are provided. The others are: water resources (and related land use planning), technical services, local and regional planning, and administration.

The administrative division takes on tasks outside the parameters of planning. It has drawn up a reorganization plan for Maine State Government, forwarded recommendations on improving the capability of the legislature in developing state policy, evaluated the performance of the executive branch, provided guidance to township, city and county governments in reorganization and better provision of services to citizens and recommended administrative procedures to reduce expenses and program duplication at all levels of government.

SPO planning services are directed to eleven multicounty planning and development districts, formed in 1972 in response to the federal Intergovernmental Cooperation Act of 1968. Local agencies are called Regional Planning Commissions, except for the Cumberland district which is served by the Greater Portland Council of Governments. Although the Portland COG is reliant on the SPO for coastal planning, its other planning responsibilities are directed to HUD-sponsored regional land use programs.

The five service divisions of the Maine State Planning Office are:

- *Water resources (and related land use);*
- *Technical assistance;*
- *Local and regional planning;*
- *Administration; and*
- *Coastal management.*

In the four remaining study sites -- Washington, Michigan, California and Florida -- a Natural Resources Department is the state agency designated to receive and administer coastal zone management funds. Two of the line departments retain the responsibility

for planning and two departments channel both funds and planning responsibility to a commission. The Washington Department of Ecology and the Michigan Department of Natural Resources administer the program in-house. In California, the Resources Agency receives the federal grant and passes it through to the California Coastal Zone Conservation Commission, created by public referendum. Florida's arrangement is the most unique. Responsible for receiving all funds, the Department of Administration passes the coastal zone monies on to the Florida Department of Natural Resources. Another pass-through occurs and the grant is given to the Coastal Coordinating Council, a group of four state department directors.

WASHINGTON DEPARTMENT OF ECOLOGY

A recent product of reorganization of state government in Washington, the Department of Ecology is a large consolidation of land and water categorical programs and functions once assigned to independent commissions. It now is charged with the task of administering all state and local funds for water resource planning, air pollution, solid waste, water quality management, comprehensive land use planning (HUD 701 assistance) and land and water use permit coordination.

Chief administrator of the state Shoreline Management Act of 1971, the Department of Ecology has not escaped the bureaucracy of a large agency operating many programs. It is organized into two branches and each branch into two offices. Coastal zone management appears to fall on the fourth tier. Within the Administration and Planning Branch is the Office of Planning and Program Development. Shorelines programs, federal and state, constitute one of ten subdivisions of the Office of Planning and Program Development.

On equal footing with the shorelines management program are the program subdivisions for comprehensive planning, water resources planning and environmental review, reflecting an organizational effort to integrate land and water planning. However, it is in a separate branch, office and program subdivision that water resources, use and quality are monitored. All are a part of the umbrella Department of Ecology, in which there are 38 program subdivisions.

Almost every aspect of land and water planning and management fall within the Department of Ecology with two important exceptions. Public owned tide, shore and aquatic lands are the responsibility of the Department of Natural Resources. The Parks and Recreation Commission, which makes use of Land and Water Conservation Act funds administered by the Department of Interior, is charged with seashore protection and conservation.

The Shoreline Management Act afforded an exemplary relationship between state and local units of government in the state of Washington. Part of the appropriation was earmarked for local government assistance. Matching grants (50% state/50% local) were distributed to local units on the basis of shoreline length and population to carry out the mandates of the legislation which included:

- *Preparation of shoreline master programs (comprehensive land use plans);*
- *Inventorying of land, its natural characteristics and existing ownership; and*
- *Administration of the regulatory program by the issuance of permits in four environmental classifications (rural, conservation, urban and industrial).*

Because of the quantity of local governments located in the coastal zone (220 cities and 18 counties), the Department of Ecology chose county governments as the primary agents for master program preparation.

As the rural coastal counties had neither the staff nor the technical knowledge required to prepare a master program, the Department of Ecology sought the assistance of the Washington State Association of Counties. A grant to the Association covered the expenses of a planner responsible for interpreting instructions and coordinating help to small communities. Nearly all the coastal counties have taken advantage of the county association planner with the exception of King County. Able to deal with the intricate master program instructions, the King County shoreline planning staff was called upon to conduct workshops for smaller counties.

Advantage was made of HUD 701 planning monies, since Shoreline Management Act grants to local governments were so sparse (the largest unit, King County received $9,000 to conduct an inventory of land use). For the last three years, the Department of Ecology has earmarked all 701 funds passed through to local governments for shoreline planning.

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Housing all of the Michigan state agencies which relate to coastal zone planning and management is the Department of Natural Resources. Its ten divisions handle the following areas: waterways, lands, geological survey, hydrological survey, water quality control, fish, parks, forest, wildlife (which administers wetlands, marshlands and uplands along the shoreline), and water development services (which handles both the planning and regulation functions of the Shoreland Protection and Management Act of 1970 as well as federal coastal zone planning activities).

The Water Development Services Division (where coastal management is lodged) is given guidance by a Water Resources Commission. Both the Division and the Commission relate to the Deputy Director for Environmental Protection (there is one other Deputy Director for Natural Resources) and then to the Director of the Department of Natural Resources. Between the Director and the Governor is the Environment and Natural Resources Commission, which is appointed by the Governor. Views of the Commission are transmitted directly to the Governor. However, an executive policy coordination staff serves as the communication link between the natural resources commission members and the Director of Natural Resources.

Michigan passed some of the earliest coastal management legislation to protect certain high risk areas near the Great Lakes. In 1970, the Shoreland Protection and Management Act provided that both the state and sub-state governments would share the responsibility of coastal area erosion. The Department of Natural Resources was to make an environmental study of the shorelands while the Water Resources Commission was asked to determine critical erosion areas. Once the findings were released, all local governments (counties, cities, villages and townships) were given the authority to zone any land within their political limits to limit environmental or erosion risk. If localities chose not to zone, authority to do so was given jointly to the Water Resources Commission and the Department of Natural Resources, futher charged with the preparation of a comprehensive plan.

CALIFORNIA RESOURCES AGENCY (AND THE CALIFORNIA COASTAL ZONE CONSERVATION COMMISSION)

California has the newest and most consolidated departments of state government. One of only four recently reorganized state executive branches, the Resources Agency administers the departments of: parks and recreation, navigation and ocean development, fish and game, lands (commission), mines and geology, and water resources programs. The Agency provides an excellent coordinator role in its state clearinghouse (A-95) responsibilities of all water resources programs.

Outside the realm, but responsive to the Resources Agency are three special purpose coastal planning commissions. Created through state enabling legislation, the Bay Conservation and Development Commission is a permanent agency for regulation of the development of San Francisco Bay. The Delta Advisory Planning Council is an interlocal planning body created by the five counties of the San Joaquin-Sacramento River delta. The largest and most comprehensive of the coastal agencies is the California Coastal Zone Conservation Commission.

Created by public referendum, the California Coastal Zone Conservation Commission is the designated recipient of federal coastal zone management monies passed through by the Secretary of the Resources Agency. Six temporary substate regional commissions have the statutory authority under Proposition 20, which created them, to prepare a comprehensive plan for their region. As the plan components are being developed and tested in public hearings, the commissions issue development permits in the interim period before the consolidated state plan is approved by the state legislature.

Participation in the planning process involves local governments to the extent that each regional coastal commission includes at least one elected official from a county and a city within the commission boundaries. Although some attempts are made to directly solicit assistance from city and county planning efforts, this is not a requirement and happens on an ad hoc basis depending on the region. However, because the commissions have permit authority of the prescribed coastal area, local zoning and land use decisions must be submitted to the final authority of the commission.

Upon the acceptance or rejection of the consolidated comprehensive coastal plan developed by the parent commission and its six regional counterparts, it will be the responsibility of the state legislature to assign the regulation and implementation powers to state agencies, local governmental units or substate authorities.

Currently, neither the comprehensive planning organizations nor the substate planning and development districts have common boundaries (with the exception of San Diego County) to the regional coastal commissions.

FLORIDA DEPARTMENT OF NATURAL RESOURCES (AND THE FLORIDA COASTAL COORDINATING COUNCIL)

All funds received by the State of Florida must pass first through the Department of Administration. Coastal planning monies are turned over to the Department of Natural Resources. Located within the Natural Resources Department is the Coastal Coordinating Council, created by the state legislature to develop a comprehensive plan for the protection, development and zoning of the coastal zone.

The Council is composed of state agency heads, namely the Directors of the Departments of: Natural Resources, Pollution Control, Administration and the Internal Improvement Fund Board (the Governor's Cabinet).

Singular to state governments, the Director of Florida's Department of Natural Resources is elected state-wide and is responsible for establishing set-backs in each county and for issuing coastal construction permits. The Internal Improvement Board manages state-owned and submerged lands, sets bulkhead lines and issues permits for coastal development. Maintenance of water quality (including permits for effluent discharge in waterways) belongs to the Department of Pollution Control. Water or land areas which are of critical or state-wide concern are controlled by the Department of Administration.

In 1972, the Land and Water Management Act gave Florida's ten multi-county regional planning councils an entrance into coastal zone management. "Developments of regional impact" (power, port, recreational facilities) resulting in the alteration of any waterway or the coastal zone were to be reviewed by the regional planning councils as the state's agent. In addition to regional planning councils, Florida also created five large water management districts, which plan for and regulate scarce ground and water resources.

Basically, Florida's Coastal Coordinating Council has within its membership the power to coordinate most planning and regulation of coastal zone areas. In accordance with the preselection of the regional planning councils, the Council made arrangements to outstation a state planner in the regional agencies in order to develop the state coastal plan. This scheme was fought by two regional agencies, Tampa Bay and Greater Miami, with even greater resistance put up by their central counties, Pinellas and Dade.

Through special acts of the legislature, Pinellas County has county-wide authority for comprehensive land use planning, aquatic preservation and water and navigation control. These powers allow it to deal directly with state agencies, bypassing regional planning councils.

CONCLUSIONS

Different strengths and weaknesses of the lead state agency are evident by examining the state organization's relationships with local units. A summary of conclusions follows.

Louisiana State Planning Office

The splintering of power and proliferation of state agencies in Louisiana make coastal zone management a difficult task for the State Planning Office. Initial coastal zone planning studies were conducted by the Louisiana Coastal Commission, assisted by the Sea Grant program staff at Louisiana State University for the State Planning Office. Further diffusion of its planning responsibilities was evidenced for many years by the joint receipt of HUD 701 comprehensive planning funds by the SPO and the Department of Public Works, the water resource management agency.

Although the current 701 state agency, the Commission on Intergovernmental Relations, has established relationships with all non-metropolitan Regional Planning Commissions it has no authority in the RPC serving New Orleans, directly funded by member jurisdictions and the HUD 701 program.

Maine State Planning Office

The early institutionalization of coastal planning in the Maine State Planning Office and its history of local government assistance is a distinct advantage. Both coastal planning and land management are integrated in a single agency, with the exception of the zoning of the unincorporated areas which are handled by the Land Use Regulation Commission.

Experience with municipal governments gained under the Mandatory Shoreline Zoning and Subdivision Control Act by the state has provided a solid foundation for state and local cooperation. They were earlier partners in administering the permit system for wetlands alterations.

The eleven regional planning districts are the creation of the state office, although some federally sponsored regional planning commissions were already in place. Generally responsive to the state, the Greater Portland Council of Governments, through intralocal implementation agreements and direct federal funding, has more clout in the capital.

Delaware State Planning Office

In Delaware, the placement of the coastal resources program in the SPO Director's office gives it a political advantage. Other SPO assignments such as the Capital Improvements Program and an environmental policy planning capability are strong complementary assets to coastal expertise. Actual management of the coastal program may be assigned to the Department of Natural Resources and Environmental Control which has a relationship with the SPO, although strained at times.

Although the state has easy geographic access to its local units of government, Wilmington and New Castle County are powerful entities which have expertise equal to that found in state governments, if not greater. This urban area is the only one of the seven study sites which is a part of a multi-state regional planning agency. New Castle County, joined by Cecil County, Maryland and Salem County, New Jersey form the Wilmington Metropolitan Area Planning Coucil. With interests to protect in three states, the Council enjoys a good reputation in coastal zone planning.

Washington Department of Ecology

While all the planning capacity for land and water resources exists in the Department of Ecology, regulation of tide, shore and aquatic lands in addition to seashore conservation belong outside the department. The close relationship between the uses of state Shoreline Management Act and federal Comprehensive Planning (HUD 701) funds promulgated reflect the strength of the agency from above (Governor) and below (local governments).

Washington's developing experience with its local governments under the auspices of state and federal coastal management legislation is the most promising of any of the seven study sites. However, the assistance accorded by the Department of Ecology through the Washington State Association of Counties to less populated counties did not affect King County in the development of its shoreline master plan.

Michigan Department of Natural Resources

Virtually every facet of both planning for and regulation of Michigan's shorelands is contained in the umbrella agency, the Department of Natural Resources. An excellent conduit between the department and the Governor exists within the Water Resources Commission.

Substate units of government, lacking little influence in land and water use planning, have been somewhat foresaken by the state under the Shoreland Protection and Management Act in favor of the regional planning agencies. While the state hopes to achieve coastal zone agreements with its local units (counties, cities, villages and townships) through the coordinating mechanism of the regional agencies, it cannot hope to reach the city of

Detroit. By offering the Southeast Michigan Council of Governments a lesser grant than other regional agencies and by sharing shoreland planning funds with Wayne County, the State and its largest city are in a stalemate.

California Coastal Zone Conservation Commission

The strength of the Coastal Zone Conservation Commission lies in its mandate by the public and its broad base of state and local government representation (appointed by or serving on the six regional commissions). Its association with the Resources Agency gives it credibility within the executive's office.

But, because it is perceived by most interested parties we interviewed as another layer of bureaucracy with authority over city and county land use decisions in the coastal zone, it has not achieved a good network of relationships with local governments. Further estranging it, the Commission's authorizing legislation does not direct or encourage cooperation with federally created regional planning organizations or state planning districts. Only because of its isolated geography does San Diego County have co-terminous boundaries with the San Diego Regional Coastal Commission, the Comprehensive Planning Organization of the San Diego Region (HUD 701 agency) and the designation as as a substate district for administration of many state programs, including water and air quality.

Florida Coastal Coordinating Council

The membership of the Director of Administration and the Internal Improvement Fund Board, the financial representatives of state government, makes the Council's role with the Governor persuasive. Also an elected official, the Chairman of the Council (Director of Department of Natural Resources) has certain power with the chief executive and the state legislature.

Although Florida's relationships with her local governments through regional planning councils has not really been tested, the Pinellas County example has pointed up some difficulties. It is still the tradition of the state legislature to pass single purpose legislation for individual local governments, giving them no reason to cooperate with regional planning efforts.

C. REGIONAL PLANNING ORGANIZATIONS

In the declaration of policy of the Coastal Zone Management Act of 1972 (Section 303 of PL 92-583), it is stated that "it is national policy to encourage cooperation among the various states and regional agencies . . . regarding environmental problems." This directive is made more specific in the Department of Commerce guidelines: "This

MATRIX OF STATE GOVERNMENT RELATIONSHIPS

STATE CZM "305" RECIPIENT AGENCY	UNIT WHICH ADMINISTERS CZM	STATE CZM COORDINATING AGENCIES	PERTINENT STATE CZM LEGISLATION/ACTIVITY	DESCRIPTION/LINKAGE WITH LOCAL GOVERNMENT
Washington				
Department of Ecology (Administers all state and local funds for: water resource planning; air pollution; solid waste planning; water quality management; 701 comprehensive planning; land and water use permit coordination.)	Administration and Planning Branch Office of Planning and Program Development Shorelines Management	• Department of Natural Resources (Manages publicly owned tide, shore and aquatic lands.) • Parks and Recreation Commission (Responsible for seashore conservation.)	Shoreline Management Act of 1971	Local governments must develop "master programs" of shoreline use. Eighteen coastal counties administer permit. Washington State Association of Counties receives funds to help counties with master program.
California				
Resources Agency (Administers departments of: parks and recreation; navigation and ocean development; fish and game; lands commission; mines and geology; water resources programs.)	California Coastal Zone Conservation Commission Six multi-jurisdictional Regional Coastal Commissions	• Delta Advisory Planning Council (Advisory body of local officials from Contra Costa, Sacramento, San Joaquin, Solano and Yolo counties along the Sacramento-San Joaquin River.) • Department of Navigation and Ocean Development • Department of Fish and Game • Department of Parks and Recreation	California Coastal Zone Conservation Act of 1972	Establishes state and six regional commissions to develop comprehensive plan and issue interim development permits. Local elected officials are members of regional commissions.
Louisiana				
State Planning Office (Provides traditional comprehensive planning in natural resources, economic sufficiency, housing, information services, transportation for New Orleans metro area and growth patterns, in which the coastal resources program is included.)	State Planning Office Coastal Resources Program	• Louisiana Coastal Commission (Membership is composed of local elected officials.) • Wildlife and Fisheries Commission (Water quality and impact on fish and wildlife, issues dredge and fill permits.) • Department of Public Works (Controls Levee Boards, water resource development, drainage, flood control.) • Land Office (Issues recreation permits for navigable waterways.) • Mineral Board (Issues leases for mineral development on state lands.) • Department of Conservation (Regulates oil and gas development.) • Board of Health (Sewage disposal, air and water quality enforcement.)	Advisory Commission on Coastal and Marine Resources, 1971	State legislature and administration officials seem interested in using regional planning agencies and/or local governments. No action has taken place to date.

STATE CZM "305" RECIPIENT AGENCY	UNIT WHICH ADMINISTERS CZM	STATE CZM COORDINATING AGENCIES	PERTINENT STATE CZM LEGISLATION/ACTIVITY	DESCRIPTION/LINKAGE WITH LOCAL GOVERNMENT
Florida				
Department of Administration	Department of Natural Resources Coastal Coordinating Council (Members are department heads of Natural Resources, Pollution Control. Administration and Internal Improvement Fund Board.)	• CZM Advisory Committee • Department of Natural Resources (Director is elected. Establishes set-backs in each county and issues coastal construction permits.) • Internal Improvement Board (Manages state-owned and submerged lands, sets bulkhead lines and issues permits for coastal development.) • Department of Pollution Control (Responsible for water quality, issues permits for effluent discharge in waterways.)	Beach and Shore Preservation Act of 1965 Land and Water Management Act of 1972	State regulates construction in coastal areas and participates in beach restoration projects. Gives Regional Planning Councils responsibility for reviewing developments of regional impact (power plants, recreational or port facilities). Localities may issue dredge and fill permits.
Delaware				
State Planning Office (Administers offices of: environmental policy and planning; community development services; population and economic analysis; human services policy and planning; and office of the director including the Capital Improvements Program and Coastal Zone Administration.)	State Planning Office Environmental Policy and Coordinative Planning Section	• Department of Natural Resources and Environmental Control (Manages land and water resources through divisions of: parks and recreation, fish and wildlife; environmental control; and soil and water conservation.)	Coastal Zone Act of 1971 Wetlands Act of 1973 Coastal Zone Management Committee, 1974 Governor's Task Force on Marine and Coastal Affairs	Bars heavy industrial development within two miles of coastline. Permits issued by State Planning Office. Permits issued by Department of Natural Resources for dredging and filling.
Michigan				
Department of Natural Resources (Administers all land and water management divisions including: lands; geological survey; hydrological survey; water development; water quality control; fish; parks; forest and wildlife.)	Environmental Protection Water Development Services Division Shorelines Management and Water Resources Planning Section	• Water Resources Commission • Environmental and Natural Resources Commission	Shorelands Protection and Management Act of 1970	Ten of fourteen regional planning agencies and Wayne County will formulate goals, identify local authorities (powers) and coordinate planning. Department of Natural Resources may issue development permits.
Maine				
State Planning Office (Planning and management services are provided through the five divisions of: water resources; technical services; local and regional planning; administration; and coastal planning.)	Coastal Planning Division	• Department of Marine Resources • Coastal Planning Advisory Task Force • Land Use Regulation Commission (Responsible for planning design and standards for air, land and water.) • Department of Conservation • Department of Inland Fisheries and Game	Mandatory Shoreline Zoning and Subdivision Control Law of 1971 Governor's Task Force on Energy, Heavy Industry and the Maine Coast, 1972 Coastal Wetlands Act of 1971	Municipalities are mandated to prepare comprehensive plan and zoning ordinances for coastal area. Land Use Regulation Commission does same for unincorporated areas of counties. Eleven regional planning agencies will receive grants for coastal zone planning. State Planning Office and localities extend permits for wetlands alterations.

requires that the State, acting through its chosen agencies including . . . areawide agencies designated under Section 204 of the Demonstration Cities and Metropolitan Development Act of 1966 and regional agencies . . . have authority for the management of the coastal zone . . . ."

In all seven study sites, the Section 204 designated agency was included in our survey. Supported through federal comprehensive planning funds (HUD 701), these agencies have several distinct characteristics. They are:

- ***Multijurisdictional organizations.*** *Five designated Section 204 agencies were multi-county agencies of which one was multi-state (the Wilmington Metropolitan Area Planning Commission); and two were single county (the Comprehensive Planning Organization of the San Diego Region and the Greater Portland Council of Governments).*

- ***Direct recipients of federal funds.*** *While state governments are frequently the agents for the distribution of federal funds to non-metropolitan areas, the state is bypassed in metropolitan areas, which receive their funds directly. This holds true in our sites.*

- ***Designated metropolitan clearinghouses.*** *Under the terms of Circular A-95 issued by the Office of Management and Budget, certain regional planning organizations are responsible for reviewing most local applications for federal aid and to judge whether or not they are in compliance with the areawide comprehensive plan.*

- ***Supported through local contributions.*** *Although the major financial base of the agencies is federal funds (including HUD 701, EPA, UMTA, LEAA, HEW 314 health planning or human resources planning, FAA airport feasibility, and DEP disaster preparedness), all depend on contributions from local government members, a fee usually based on the population of the member jurisdiction.*

- ***Coterminous with other substate agencies.*** *With minor variances, the regional planning organization boundaries are the same boundaries used for administration of other state and federal programs. In the states which had governor-designated substate planning and development districts, they were generally the same areas as those of the regional planning organizations.*

- ***Composed of elected or appointed officials.*** *Each organization has a slightly different membership arrangement. Elected officials are the members of the policy-setting board while appointed officials are on the committees which develop the policy alternatives. Recent trends*

have been that the elected officials designate appointed officials to represent and vote for them.

In six of seven study sites, there was more than one regional planning organization. Very often the non-A-95 agency had more clout because of special authority given to it by state government or through interlocal agreements among the local government units served by the regional agency. We shall discuss both the A-95 comprehensive planning organization and other state or locally designated regional planning organizations.

PUGET SOUND GOVERNMENTAL CONFERENCE (PSGC)

One of the oldest regional planning organizations in the country, the Conference was an association of the planning directors from four counties. In 1957, through actions of the four county commissions, it became an official body also representing 24 cities and several Indian tribes. State legislation allows regional planning bodies powers similar to those of counties.

The 1965 legislation specified that regional agencies may be formed for "facilities studies on hgihways, transit, airports, ports or harbor developments, water supply and distribution, codes and ordinances, governmental finances, flood control, air and water pollution, site recommendations for educational institutions, hospital and health facilities, parks and recreation, public buildings, land use and drainage, and to formulate recommendations for review and action by the member counties and/or cities legislative bodies."

The Puget Sound Governmental Conference prepared and adopted in 1971 the Interim Regional Development Plan. Local officials feel that it is nothing more than a sophisticated consolidation of individual plans of member jurisdictions. Developed before the passage of the Shoreline Management Act, the plan does not have a coastal component. A current updating will include consideration of the master programs submitted by the four counties in compliance with the legislation. A comparison of the Shoreline Management Act and the Interim Plan has been prepared. For every subsection of the legislation, an approved policy of the Conference is listed.

The Conference feels that the Shoreline Management Act has regional planning implications. To that extent they have appealed to the Washington Department of Ecology for some federal coastal zone management funds. (A grant had previously been awarded by the Department of Ecology to a regional group allowing the Lake Washington communities and their citizens the financial base to prepare a Regional Shoreline Goals and Policies report.)

The Department of Ecology has no interest in funding the Puget Sound Governmental Conference for coastal coordination or technical assistance. As Puget Sound is a metropolitan agency, there is no 701 relationship with the Department of Ecology. Regional planning organizations in Washington look to three separate state agencies for planning assistance and coordination is difficult for some substate agencies, particularly Puget Sound. Representing 57% of the state's population, the state feels that the Conference has and will continue to survive without state cooperation.

MUNICIPALITIES OF METRO SEATTLE (METRO)

The METRO agency was created over public concern about the water quality of Puget Sound and Lake Washington. In 1958, the municipal corporation was approved by the voters to plan, construct and operate sewage facilities for King County and all its municipalities. Within the state enabling legislation for METRO is the authority to perform five other functions: public transportation, comprehensive planning, park administration, garbage disposal, and water supply.

The agency acts as a wholesaler to the city and county sewer districts, connecting, transporting, treating and discharging sewage. An elaborate 600-station water quality monitoring system checks on the effect of sewage disposal on the quality and marine life of all receiving waters. METRO has also undertaken a river basin planning program which will be a major policy tool to city and county officials faced with water and land use decisions and their environmental impact. Designated by the governor as the EPA Section 208 grant recipient, METRO feels some challenge to its autonomy by the Department of Ecology. The Section 208 grant represents the first formal relationship with a state agency.

COMPREHENSIVE PLANNING ORGANIZATION OF THE SAN DIEGO REGION (CPO)

In the initial years of its history, the San Diego Comprehensive Planning Organization was entirely funded by San Diego County and staffed by county employees. Between 1966 and 1972, it performed the functions of a local planning department. Just two years ago, the City of San Diego headed up the force to remove the CPO from county control and was successful. Under a joint powers agreement between the thirteen cities and the county, the agency is independent of a single government.

The single-county Comprehensive Planning Organization of the San Diego Region has further been designated as the regional transportation planning agency (serving two other counties) by the California Transportation Department and as one of nine substate districts of the Office of State Planning. Under a federal health planning grant, the agency assists another county.

As the official airport and land use commission, the CPO has considerable strength in its state enabling legislation. Decisions contrary to local governments by the Commission can be overridden only by 80% of CPO membership.

Based on coastal zone legislative proposals pending in the California legislature in early 1972, the CPO began the research for a coastline policy and plan. The vital coastal issues identified in the San Diego region were shared with legislators and many of them were reflected in Proposition 20 which passed at the end of that year by public referendum. As the CPO plan does not contain actual ordinances or legal suggestions, it is a complement to the work started by the San Diego Regional Coastal Commission, one of six substate agencies created by Proposition 20.

The CPO further acts as a broker between the San Diego Regional Coastal Commission and its local government constituents. Trying to protect the planning efforts of its two largest units, the CPO has included the county's recommendations for protection of its coastal development overlay zone and the city's ocean edge study in its plan, and forwarded them to the San Diego Regional Coastal Commission.

Although the CPO's planning efforts are highly regarded by its local governments, the agency is under frequent criticism for trying to do more than plan. Local officials feel that it oversteps its role and is interested in managing or implementing projects. Because the agency does exercise some influence over local programs funded by the state and federal government, it is perceived to be another level of bureaucracy. Both city and county, usually antagonists in land use decisions, use the CPO as a battleground.

STATE DESIGNATED DISTRICTS IN SAN DIEGO COUNTY

Because of geography and natural environmental characteristics, San Diego County and its thirteen municipalities are considered by themselves and the state to be a region. The *San Diego Air Quality District* is a state agency whose five members are the San Diego County Board of Supervisors. The board is responsible for establishing policy in compliance with EPA clean air standards. As most air pollution is caused by the emissions from vehicles, a conflict between the county board (serving as the state Air Quality District) and the Comprehensive Planning Organization (serving as the state transportation agency) has developed. Air quality planning is dependent on transportation planning but sometimes challenged by politics.

The *San Diego Regional Water Quality Control Board* is the state's administrative arm for the independent sewer districts in the county. Some of the county sewer districts are a part of a regional sewer system operated by the City of San Diego while the others are responsible to the state. When the Water Quality Control Board issued a moratorium on septic systems in two highly urbanized unincorporated communities, the county appealed to the city for sewer connections. Already overloaded, the city refused until the state forced it to, under the threat of turning down the city's request for funds to build a sewage treatment plant.

Finally, the *San Diego Regional Coastal Commission* must be considered as a regional planning organization as well. Although temporary in its authority, for several years, it has ultimate authority over city, county and other state agencies in all development and use of the land, water and resources in the coastal zone.

REGIONAL PLANNING COMMISSION FOR JEFFERSON, ORLEANS, ST. BERNARD AND TAMMANY PARISHES (RPC)

Created by state enabling legislation in 1962, the Regional Planning Commission is composed of four parish (county) governments and nearly all the municipal governments within them.

The four-parish area also serves as a Department of Commerce designated Economic Development District. It is also intended by the State Planning Office and the Louisiana Commission on Intergovernmental Relations to be a substate planning district. (Plaquemines Parish is included in the substate district but usually refuses federal or state assistance.) As neither the State Planning Office nor the Commission on Intergovernmental Relations (state A-95 agency) has a financial relationship with the only metropolitan planning agency in the state, the designation is not meaningful at this time.

However, the Regional Planning Commission for Jefferson, Orleans, St. Bernard and Tammany Parishes does have a link to Louisiana state government as the Governor's appointed regional transportation planning agency. Unlike the regional planning agencies in the other study sites which are composed of all highly urbanized governments, this RPC has special intra regional conflicts. Orleans Parish is a single incorporation, the City of New Orleans, pitted against the suburban interests of nearby Jefferson Parish. St. Bernard and Tammany Parishes are primarily rural and have a healthy disrespect for the urban problems of their neighbors.

Because there has not been a state legislative initiative for coastal management, the RPC has not been impelled to develop specific policies or plans in this area. Their comprehensive land use plan addresses the conservation and preservation of natural resources which is certainly a primary objective of coastal zone management.

Only a fourth of the boundary or Lake Ponchartrain is within Orleans Parish and thereby eligible for RPC planning consideration. The majority of lakefront decisions are made by the state land office. Interest in using regional planning bodies for coastal zone management has been expressed by both the State Planning Office and the RPC but the interest has not materialized into action.

PORT OF NEW ORLEANS

Dating to the time of the Louisiana Purchase and having its original charter provisions within the Napoleonic Code, the Port of New Orleans was established in 1896. It has jurisdiction within Orleans, Jefferson and St. Bernard Parishes for water-borne trade, commerce and transportation.

The Governor-appointed Board of Commissioners of the Port have authority similar to that granted to Parish sheriffs. Their jurisdiction extends landward to the first city street and seaward to all Louisiana waterways subject to tidal action. This area includes 47 miles of the Mississippi River as far north as Baton Rouge. A harbor police force enforces both civil and criminal offenses on land or water as specified by Board of Commissioners ordinance.

City zoning does not apply to the Port district, although certain parcels of land are dedicated for public use and maintained by the city. Only the land and water use decisions necessary for protection against floods in the Port district are a responsibility of the Levee Board of Orleans Parish. The current Board of Commissioners and Port Authority staff cooperate with the New Orleans City Council, Planning Commission and Levy Board by submitting many issues to them for consideration and advice.

In several other study sites, the Port Authority owns and operates several other transportation facilities, especially airports and railroads. In New Orleans the airport is governed by an Airport Commission appointed by the Mayor and it is the city which actually runs the public belt railroad. Outside its traditional responsibilities, the Port operates the city's Rivergate Exhibition Trade Center in downtown New Orleans.

The Port has received federal flood relief assistance from OEP and an LEAA grant to purchase police equipment. EPA funds allowed the Port to tie into the city sewer system and offset the costs of treatment for the city.

There is another port facility in New Orleans created in 1972 by the state legislature. The *Offshore Terminal Authority (Superport)* has jurisdiction seaward over all Louisiana coastal waters and landward to the extent of facilities needed to support the offshore terminal. Superport coordinates its activities closely with the Port of New Orleans, which assisted in its formation. It has received planning information from the Regional Planning Commission and will adhere to local building codes of Parish land it intends to use.

TAMPA BAY REGIONAL PLANNING COUNCIL (TBRPC)

Florida's ten regional planning councils were initially organized under a state statue authorizing voluntary memberships among contiguous counties. Real authority

was given to them in 1972 under the Comprehensive Planning Act and the Land and Water Management Act, in which they were designated state planning districts.

The Tampa Bay Regional Planning Council is composed of four counties and eight cities. It is charged with the responsibility for reviewing "developments of regional impact" such as port, power plant or recreational facilities which would affect more than one county. On behalf of state government the regional councils also identify areas of critical concern which might alter any body of water.

Upon indicating its intention to implement coastal zone planning by placing staff of the Coastal Coordinating Council in each of the regional councils, the state received strong criticism from the director of the Tampa Bay Regional Planning Council. It was the position of the regional agencies that they should have the responsibility of developing the coastal zone management plan with their localities, not the state agency. Local officials in Clearwater, St. Petersburg and Pinellas County violently objected to the positions of the state (Coastal Coordinating Council and the Division of State Planning) as well as the regional council. They felt that the Tampa Bay staff neither understood local government problems nor had the depth of planning knowledge necessary to a coastal zone management problem.

Other than this proposal to assist the Tampa Bay Regional Planning Council with staff, the Coastal Coordinating Council has provided very little help to the region. Clearwater was one of two sites used by the Coastal Coordinating Council to demonstrate coastal zone planning. Both Pinellas County and St. Petersburg found it necessary to impose development moratoriums in their communities which gave them an opportunity to study coastal management in conjunction with comprehensive planning.

Because Pinellas County has three unique county-wide authorities provided for by state enabling legislation (Water and Navagation Authority, Aquatic Preserve Act protecting submerged lands and the Pinellas County Planning Council covering all 24 municipalities as well) the county officials find it most practicable to bypass the regional council and deal directly with state agencies. County power (through the special legislation) and planning expertise far exceeds that of the regional council and of state agencies as well.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)

Organized in 1961 as a flood control district, this 15-county area is now one of the five official Florida water management districts. By virtue of 1972 state legislation, it can exercise complete control over both surface and ground water. The Southwest Florida Water Management District (pronounced 'swift mud') is the chief substate planning agency and can actually regulate the use of water by the local governments in the district.

WILMINGTON METROPOLITAN AREA PLANNING COUNCIL (WILMAPCO)

In the early 1960's, private citizens, businessmen and public officials representing state, county and city governments formed an informal planning body which became known as the New Castle County Program. Basic to its purpose was the development of transportation route and land use plans throughout the county, including Wilmington and several smaller municipalities which were experiencing rapid growth.

Wanting to take advantage of federal assistance, the New Castle County officials petitioned the federal government to become a regional planning organization, eligible for HUD funds. Because the Standard Metropolitan Statistical Area of Wilmington included neighboring Salem County in New Jersey and Cecil County in Maryland, a tri-state council of governments was formed. The Wilmington Metropolitan Area Planning Commission was created in 1970.

Soon afterward, WILMAPCO was designated as the official transportation planning agency and became eligible to receive Federal Highway Act monies. It is further recognized by all three states, Delaware, New Jersey and Maryland, as an official regional planning organization. Because the state of Delaware is small and because 70% of the population live in one of only three counties, New Castle County, WILMAPCO carries its weight in government circles.

When Delaware first considered its Coastal Zone Act, WILMAPCO staff were invited to participate in planning and drafting sessions sponsored by the State Planning Office and the Department of Natural Resources. As federal monies became available, a Coastal Zone Management Committee was formed and the regional planning organization continued its input, along with city and county representatives. WILMAPCO also assists city and county planning efforts, illustrated by its recent participation in the EPA Section 208 river basin studies of New Castle County.

METROPOLITAN PHILADELPHIA AIR QUALITY CONTROL REGION

Established in 1968 for evaluation, planning and coordination of air pollution control, the air quality region also spans several states. It includes Bucks, Chester, Delaware and Montgomery counties and Philadelphia in Pennsylvania; the counties of Burlington, Camden, Cloucester, Mercer and Salem in New Jersey and New Castle County in Delaware. The Environmental Protection Agency approves each plan before the region is qualified to receive federal Clean Air Act assistance. New Castle County is responsible first to the Delaware Department of Natural Resources and Environmental Control for its eligibility.

GREATER PORTLAND COUNCIL OF GOVERNMENTS (GPCOG)

Between 1956 and 1968, the Greater Portland Council of Governments was a voluntary regional planning commission composed of 17 jurisdictions in Cumberland County. The official COG designation was made in 1968 by the state legislature. Several years later, the area was further identified as one of the states eleven planning and development districts.

The Greater Portland Council, in addition to its federal A-95 responsibilities, serves as a substate agent for the Maine Department of Environmental Protection. In this capacity, the agency reviews and makes comments on six types of applications: waste discharge licensing; mining reclamation; site location; minimum lot size; compliance with the Great Ponds Act; and compliance with the Wetlands Act.

Rather unique for a regional planning organization, the Council, in response to local needs, is planning for and actually constructing a solid waste disposal system. Containing both a baling facility and a sanitary landfill, the system will serve ten municipalities in Cumberland County including Portland. A private operator will be hired and supported through user fees of the cities which also paid for construction costs.

The Greater Portland Council is sponsoring an application, with three non-member municipalities, for an EPA Section 208 grant which provides for comprehensive waste treatment management. Efforts will be made to coordinate the waste treatment program with prior water pollution control studies, the mandatory shoreline zoning procedures and the coastal zone management programs, administered by the Maine State Planning Office.

SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS (SEMCOG)

Based on a 1945 state act providing for regional planning commissions, the seven counties of the Detroit metropolitan area formed a loose union. It later became an Economic Development District (Department of Commerce) and a substate district responsive to the Michigan Transportation and Land Use Agency, which passed through federal highway planning monies.

In 1968, the agency was commissioned the Southeast Michigan Council of Governments with a total of 96 member jurisdictions located in the seven-county area. Although the urban-rural character of the counties is similar, there are frequently power battles which surface at COG meetings. Macomb County has a history of dropping out and rejoining the COG because of its disagreement with policy on controversial issues. Many jurisdictions have objected to the SEMCOG regional water and sewer facilities plan which overestimated new hookups. Based on regional council data several communities raised sewer rates or floated bonds to accommodate the growth projections.

MATRIX OF LOCAL GOVERNMENT RELATIONSHIPS

PREDOMINANT UNIT IN COASTAL ZONE MANAGEMENT	INFERIOR UNITS (Smaller Geographic Area)	PARALLEL UNITS (Same Geographic Area)	SUPERIOR UNITS (Larger Geographic Area)	STATE CZM INVOLVEMENT WITH PREDOMINANT UNIT	REASON FOR PREDOMINANT UNIT
Washington					
County of King	Seattle and twenty smaller municipalities	• Municipalities of Metropolitan Seattle (METRO) (State authorized county wide transit, sewage treatment and water supply agency.) • Seattle Port Authority (State authorized county wide district.)	• Puget Sound Governmental Conference (five-county A-95 agency)	Three grants to county to prepare master program in compliance with state legislation.	King County has charter authority. Seattle would have received only $200 in planning funds and thus, allowed the county to prepare the shoreline plan.
California					
San Diego Regional Coastal Commission	San Diego and twelve smaller municipalities Independent sewer districts	• San Diego County • Comprehensive Planning Organization of the San Diego Region (county wide A-95 agency) • San Diego County Air Quality District (State designated for purposes of EPA compliance.) • San Diego Regional Water Quality Control Board (State administrative arm of independent sewer districts.)		Regional commission is funded by state law to develop plan and issue permits. Local elected officials serve on commission.	
Louisiana					
City of New Orleans	None	• Levee Board of Orleans Parish (State authorized special agency with ability to build levees on all bodies of water subject to flooding. Also builds and manages housing subdivision, beaches, parks, bridges, marina and commercial airport.) • Sewerage and Water Board (State authorized special district which handles water supply, sewage treatment and drainage.)	• Port of New Orleans (Authorized by Napoleonic Code.) • Superport Offshore Terminal Authority (Authorized by state legislation.) • Regional Planning Commission for Jefferson, Orleans, St. Bernard and St. Tamany Parishes (A-95 agency, sub-state district.)	None	Levee Board depends on federal funds (Corps dredging, FAA Airport expansion) for some activities and is therefore subject to City Planning Commission decisions and the environmental impact statement procedures.

PREDOMINANT UNIT IN COASTAL ZONE MANAGEMENT	INFERIOR UNITS (Smaller Geographic Area)	PARALLEL UNITS (Same Geographic Area)	SUPERIOR UNITS (Larger Geographic Area)	STATE CZM INVOLVEMENT WITH PREDOMINANT UNIT	REASON FOR PREDOMINANT UNIT
Florida					
County of Pinellas	St. Petersburg, Clearwater and twenty-two smaller municipalities	• Pinellas County Water and Navigation Control Authority (State authorization to establish bulkhead and issue dredge permits.) • Pinellas County Planning Council (State authorization to prepare county wide land use plan.)	• Tampa Bay Regional Planning Council (A-95 agency covering four counties and one of ten state planning districts.) • Southwest Florida Water Management District (Fifteen-county flood control district and one of five state water management districts.)	Coastal Coordinating Council prepared a coastal plan for city of Clearwater but has had no contact with Pinellas County.	
Delaware					
State of Delaware	Wilmington, New Castle County and all other local governments. Port of Wilmington	None	• Wilmington Metropolitan Area Planning Commission (Multi-state A-95 agency including Cecil County, Maryland and Salem County, New Jersey.)		
Maine					
City of Portland	None	None	• Cumberland County • Greater Portland Council of Governments (County-wide A-95 agency with state designation and review authority of state Department of Environmental Protection applications.) • Portland Water District (Independent water and sewer authority for Portland and eight municipalities.) • Port of Portland (State authority which also serves South Portland.)	COG areas have been sanctioned by state as coastal planning areas which legislation requires cities to develop protective zoning ordinances and comprehensive use plans.	Maine counties have no planning or zoning authority and depend on State Land Use Regulation Commission.
Michigan					
City of Detroit	None	None	• Wayne County • Detroit Metropolitan Water Sewage Board (Charter authorized, the agency sells water and treats sewage for an area larger than Wayne County.) • Southeastern Michigan Council of Governments (Seven-county A-95 agency also state designated agency for land use and transportation planning.) • Huron-Clinton Metropolitan Park Authority (State authorized five-county agency with taxing authority.) • Wayne County Port Authority		Wayne County has no authority to regulate planning or zoning.

In its efforts to execute the provisions of the Shoreland Protection and Management Act of 1970, the Michigan Department of Natural Resources selected councils of governments as its agents. Of the fourteen regional planning organizations in the state, ten with coastal boundaries were awarded $25,000 grants to: formulate goals and objectives; recommend management controls; identify local powers and legal authorities; and coordinate the plans of local jurisdictions.

Because of a long-standing feud between the Department of Natural Resources and SEMCOG, the agency was offered only $15,000 to prepare an inventory. The grant was turned down. Complicating the situation was a small grant to one of the SEMCOG jurisdictions. Wayne County received state funds to perform an identification of regional coastal issues. Needless to say, the state and SEMCOG relations remain strained.

SUMMARY

By referring to the number of different agencies – both at the state level and in the urbanized locale – and their related effect upon the land use and water use resources in the coastal zone, this chapter pointed out the extent of, in some cases, duplication and, in other cases, the fragmentation that exists. Further, the economic interests which each agency has nominally represented: regional planning groups, suburban; port authorities, shipping and industrial development, has vastly complicated the needs identification and priority-setting activities vital to pinpoint the specific objectives – development, preservation, recreation, etc. -- which underlie planning and management of the coastal zone. In the absence of a consensus among those competing agencies and interests over issues revolving in the coastal zone, the management of activities in the coastal zone has been exacerbated. Conversely, in those circumstances where there has been a merging of interests and centralization of authority in one or a few agencies the planning and cost of resources in the coastal zone have been vastly simplified, with a resulting higher probability that the planned objectives will be achieved.

CHAPTER III

GUIDANCE FROM THIS STUDY ON ELEMENTS OF COASTAL ZONE MANAGEMENT AND INSTITUTIONAL ARRANGEMENTS TO ADDRESS THOSE ELEMENTS

III. GUIDANCE FROM THIS STUDY ON ELEMENTS OF COASTAL ZONE MANAGEMENT AND INSTITUTIONAL ARRANGEMENTS TO ADDRESS THOSE ELEMENTS

A. INTRODUCTION

In this chapter we specify the elements of coastal zone management in states with an urban area/s and provide alternative recommendations on the institutional arrangements necessary to adequately address those elements. As we stated earlier in the Background of this report ***coastal zone management*** is currently a nearly inextricable mixture of both political governance and implementing actions and the ***urban area*** is considered to be the central city and the county surrounding it.

When considering the elements and institutional arrangements of urban coastal zone management, it is important to consider the striking lack of similarity and comparison among our seven study sites. For purposes of illustrating this diversity, let us focus on the coastal zone management elements in New Orleans/Orleans Parish, Louisiana and the City and County of San Diego, California.

ELEMENT	NEW ORLEANS, LOUISIANA	SAN DIEGO, CALIFORNIA
State program agency	State Planning Office	Resources Agency
• *Position as:*	*One of 262 cabinet agencies.*	*One of 4 cabinet agencies.*
• *Planning delegated to:*	*One of 6 projects in SPO.*	*Independent coastal commission.*
• *With powers of:*	*Preparing plan.*	*Preparing plan and regulating development.*
• *Assisted by:*	*Staff only.*	*Local elected officials who vote on interim use while plans are subject to citizen hearings.*
Regional planning organization		
• *Composed of:*	*4 parishes with varying urban, suburban and rural constituencies.*	*1 county and its 13 homogeneous municipalities.*
• *With plan expertise:*	*No coastal component*	*Comprehensive policy and use plan, preceding state legislation.*
Local Government	Consolidated city/parish	City and county
• *Planning:*	*City staff prepared draft of proposed state legislation outlining local powers.*	*Both city and county have passed beach erosion, ocean-edge, coastal protection ordinances.*
• *Zoning:*	*All land except in Port or around levees.*	*All land except Port.*

ELEMENT	NEW ORLEANS, LOUISIANA	SAN DIEGO, CALIFORNIA
• *Services:*	*Water and Sewer Board.*	*City sewer system and independent county districts.*
Special Authorities	Port Authority Levee Board Offshore Terminal	Port Authority Water Quality Board

Although we are able to make some generalizations among the sites, each has notable exceptions. Thereby, we will identify the primary examples of: state legislation; state organization and agency relationships; regional planning; local governments and cooperative mechanisms between city and county agencies; and special authority or district arrangements in this chapter.

B. DISCUSSION OF THE ELEMENTS

In order to select the primary examples of urban coastal zone management in our sites, we have applied the vital elements suggested in the legislation, the implementing guidelines, and the request for proposal on this contract. Conclusions were drawn based upon our rating (1-low, 5-high) of the seven study sites on the following issues (certain questions are weighted):

1. *Has the state coordinated its coastal zone program with local, areawide and regional plans?*

2. *Is there a single state agency to receive and administer the federal grant?*

x2 3. *Is the state organized in such a way that it can implement the management program?*

4. *How many state agencies are involved in the planning and management of the coastal zone program?*

5. *To what extent has the coastal zone management program received the attention and/or the approval of the Governor?*

6. *Has the state designated certain priority uses of the coastal zone?*

x2 7. *Were local or regional officials consulted during the development of the state coastal zone program?*

x2 8. *Is there an effective mechanism for continuing coordination with local governments, regional agencies and state government?*

x2 9. *Has there been adequate participation of the public through hearings or other mechanisms?*

10. *Has specific attention been accorded to the urban areas in recognizing:*

x2 a. *Local powers and authorities;*

b. *Number of jurisdictions;*

x2 c. *Institutional arrangements between city and county;*

d. *Special districts or authorities; and*

e. *Allocation of coastal land uses.*

A review of the state's application for Section 305 Coastal Zone Management Act funds, briefings by our federal contract staff and other coastal zone experts and extensive on-site interviews allowed us to make observations relating to these elements (listed above) and make the following conclusions regarding the primary examples of institutional arrangements for urban coastal zone management:

PRIMARY INSTITUTIONAL ARRANGEMENTS FOR URBAN COASTAL ZONE MANAGEMENT

State legislative authority: Shoreline Management Act of 1971, State of Washington.

State program agency: Florida Coordinating Council; and Washington Department of Ecology.

State organizational arrangement: Michigan Department of Natural Resources.

Regional planning organizations: Comprehensive Planning Organization of the San Diego Region; and Greater Portland Council of Governments.

City-County Cooperation: Wilmington and New Castle County, Delaware.

City: New Orleans, Louisiana.

County: Pinellas, Florida; and New Castle, Delaware.

Special Districts: Municipalities of Metropolitan Seattle; and Levee Board of Orleans Parish.

C. GUIDANCE FROM THIS STUDY ON INSTITUTIONAL ARRANGEMENTS

STATE LEGISLATIVE AUTHORITY

The state of Washington's Shoreline Management Act is the most unique legislative backdrop for the examination of state and local relationships. In 1969, a landmark decision by the Washington Supreme Court, Wilbur vs. Gallagher, declared that any navigable body of water (tidal or surface) belonged to the people of the state. The impact was

that any public or private construction on or near tidal waters would have been completely prohibited. This decision was the basis for a broad-based, respected citizens group, the Washington Environmental Council, to propose an initiative to the state legislature. The resulting compromise between citizens and elected officials resulted in a cooperative venture for coastal zone management between state and local governments in Washington.

The Shoreline Management Act of 1971 gives the elected officials of city and county governments the primary responsibility for the inventory of land use ("environments"), planning ("master programs") and management (through the permitting system) of the coastal zone.

A second unique feature is that the state provided small grants (fifty-fifty matching) to local governments to help offset the planning costs of preparing the inventory and master plan. (Further, because HUD 701 funds are received by the umbrella Department of Ecology, they were earmarked for three years to be used by local governments for shoreline planning.) Federal coastal zone management funds will also be shared with the local governments. However, whereas the Department of Ecology receives its Section 305 grant on a two-thirds/one-third basis, the money will be passed on to local governments on a fifty/fifty basis. We highly recommend the legislation and its provisions to local governments.

GUIDANCE FROM THIS STUDY

(1) For large urban areas, state governments which delegate any part of the regulatory or management functions to local units should specifically make the elected officials accountable and responsible for those functions.

(2) If local units of government are designated by the state agency to plan for or manage coastal zone areas, the state should consider passing through adequate funds for these purposes. The funding reimbursement arrangement should be based upon the area's population and miles of controlled shoreline. (Michigan's Department of Natural Resources gave $25,000 grants to regional councils. The Washington Department of Ecology split $100,000 between eighteen counties based on shoreline and population, resulting in only token financial assistance.)

(3) States should consider providing incentives for local governments in the urban sector of the coastal zone to encourage their positive participation on a comprehensive statewide program of coastal zone management. This could be in the form of early sign-off authority for major state activities in the area affecting the coastal zone. It could represent additional funding, perhaps additional "701," Section 208 of Federal Water Pollution Control Act, or capital grants money.

(4) OCZM/NOAA should examine the possibilities of using other federal general purpose planning funds for urban coastal zone planning. For example, HUD "701" funds, distributed to metropolitan regional planning agencies and cities, have traditionally been used to develop regional and local transportation and land use plans, or more recently have been used by the Mayor to strengthen the management capability of the executive office.

(5) Some federal encouragement, such as an interagency agreement between HUD and DoC or language in the *Federal Register*, should be offered to "701" recipients so that they might consider water, as well as land use in the development of their plans. This also applies to EPA's Section 208 planning grant program.

STATE PROGRAM AGENCY

The comprehensive responsibilities (for both planning and regulation) vested in the Florida Coastal Coordinating Council (a part of the Department of Natural Resources) is an exemplary coordinating mechanism of any state agency among the sites, a close contender being the Washington Department of Ecology.

Within both agencies is the state planning office, allowing coordination of traditional land use planning with water resources planning.

The Florida Department of Natural Resources Director (which is an elected position) serves as the Chairman of the Coastal Coordinating Council. Every aspect of land and water management falls to one of the other department heads represented on the Council. This includes Pollution Control, Administration (finance) and Internal Improvement Fund Board (the Florida Cabinet). (In Washington, management of tide, seashore and acquatic lands are handled outside the Department of Ecology.) Operational since 1970, the Council employs a well qualified staff who enjoy some autonomy. To date, its efforts have been directed to preparing an inventory of land use by census tracts, the *Florida Coastal Zone Management Atlas.*

In lieu of no state coastal zone legislation, the Council selected the regional planning councils (commissioned to review 'developments of regional impact') as its substate planning mechanism. A proposal to place Coastal Coordinating Council staff in each one of the regional planning councils drew criticism from the regional councils and local governments as well.

GUIDANCE FROM THIS STUDY

(6) The state agency designated to receive and administer coastal zone program funds should be able to effectively coordinate the planning and regulatory activities of all other state agencies having land and water use responsibilities. To locate these functions, in addition to financial control (such as the Department of Administration and

the Internal Improvement Fund Board) in a single body, would be the most ideal situation, albeit not always practical. This and other organizational arrangements could be achieved, in the case of strong governor forms of government, by Executive Order. Likewise, it could be achieved by giving the CZM administering agency lead agency responsibility in any coordinating mechanism. In cases of multiple state sponsor, the Governor should clearly designate a single state agency to be the primary focal point for coordination of the other state agencies which have program authority pertaining to coastal zone management.

(7) In cases of a multiple departmental sponsor, the Governor should designate a single lead agency to act as general manager and liaison with other agencies which are involved.

(8) If the state intends to locate coastal zone planners in local or substate agencies, particularly "701" funded regional planning councils, the elected officials from the jurisdiction affected should be consulted with in order to ensure a greater willingness to assist in the development of the coastal zone plan.

STATE ORGANIZATIONAL ENTITY

The use of Governor-appointed advisory commissions is best seen in conjunction with the Michigan Department of Natural Resources. Language in the Shoreland Protection and Management Act requires the Department of Natural Resources and its Water Resources Commission to jointly develop a comprehensive plan, supervize local shoreland zoning ordinances and issue development permits. The Water Resources Commission acts as an advisor to Department staff but reports directly to the chief executive.

Another environmental umbrella agency, the Department of Natural Resources is the single organizational entity for land and water management in Michigan. It lacks only the comprehensive land use planning office found in Florida and Washington states lead program agencies.

GUIDANCE FROM THIS STUDY

(9) Use of coastal zone management advisory bodies to the Governor should be encouraged. Membership should include local elected officials and citizens from affected areas appointed by the Governor. The major responsibility of this advisory committee should be to facilitate communication between the executive/administrative agencies and substate units and the public.

(10) The state comprehensive land use planning office or division should be considered for merger or integration into the state coastal zone program agencies, or its planning processes, to achieve maximum coordination.

(11) Where examples of city and county cooperation exist, the state program agency should make every effort to identify and protect those local relationships.

(12) State agencies should be encouraged where possible to select only one level of local government as a planning agent in order to maintain efficiency. (Although funds in Washington were first offered to both cities and counties, it was more efficient to give the counties planning responsibility [18 coastal counties including 250 coastal cities] .)

(13) In states which allow special purpose legislative acts to be passed affecting only one jurisdiction, the state should have a readily available resource to advise them of local powers which supersede state authority. This also applies to information about authorities of special purpose districts, local revenue sources and restrictions and other statutory authorities given to subunits of state government. (The Pinellas County Planning Council authority exceeds that of the Tampa Bay Regional Planning Council except for review of developments of regional impact.)

(14) State agencies should treat their subunits to which they have decentralized authority with equal treatment. (Situation in Michigan when Department of Natural Resources funded all COG's except SEMCOG in favor of Wayne County.)

(15) State agencies should consult local elected officials when developing coastal zone management legislation. (New Orleans Department of Planning.)

(16) Because much expertise is required to implement new disciplines, such as coastal zone management, located within urban governments, state agencies should make arrangements to take advantage of such personnel. (The King County shoreline planner is used to conduct workshop sessions for other county planners.)

REGIONAL PLANNING ORGANIZATIONS

Traditionally limited in their scope of responsibilities, regional planning organizations are the official federally designated land use and transportation planning agencies. However, among our study sites, only the Comprehensive Planning Organization of the San Diego Region has initiated a coastal management plan component. It successfully serves as a conduit between its city and county constituents and the state by referring local coastal protection plans and ordinances to the San Diego Regional Coastal Commission.

GUIDANCE FROM THIS STUDY

(17) Regional planning organizations, whether designated by either the federal or state government, should serve as a conduit for transferring information between local governments and the state program agency.

(18) In the event that regional agencies are assigned planning responsibility by the state program agency (Michigan, Florida and Maine), they should carefully consult with local government planning efforts to assure maximum consideration in the state program.

(19) Regional planning organizations in urban areas have a special responsibility to their member jurisdictions. Because they are directly funded by the federal government, they may circumvent the state planning system. They should be the point of coordination between state coastal zone planning efforts and those of local governments. (Maine as the example, specifically Greater Portland Council of Governments.)

(20) Regional planning organizations should try to employ personnel sensitive to the interface between land and water use (see Urban Planning chapter).

(21) Local governments should be able to request technical assistance and information from their regional planning organizations in the development of a coastal zone plan.

(22) Regional agencies should be used as mechanisms to coordinate city and county plans and policies.

(23) Where possible, local governments should be encouraged to consider a broader role in planning, coordination and controlling activities impinging on the coastal zone for their regional planning organizations in developing and implementing a coastal zone plan. This is particularly critical in urban areas, where the jurisdictions may have different charter/home role authorities. (The example of the Regional Planning Commission for Jefferson, Orleans, St. Bernard and Tammany Parishes is a primary illustration of this recommendation. Orleans is a consolidated, highly urban parish-city government with strong Mayor form. Jefferson has partial home rule powers and is an entirely suburban community. St. Bernard and Tammany Parishes are quite undeveloped and rural.)

CITY - COUNTY COOPERATION

Although working relationships between the local governments in the urban area occur in nearly every study site, certain considerations should be for coastal management purposes. Wilmington's water and sewer department provides services to city and county residents alike. The city's sewage treatment plant is located in the port district on land owned by the county. On a nearby parcel, the county sanitary landfill accepts solid refuse from city or county sources. Although the county is the recipient of an EPA Section 208 water basin planning grant, information will be readily shared with city planners.

GUIDANCE FROM THIS STUDY

(24) State agencies should refrain from creating situations which force one local government to take advantage of another (state water quality control board mandate to city of San Diego to extend sewer service to unincorporated communities served by the county).

(25) For the sake of efficiency, state agencies should interpret their enabling legislation and select one type of local unit of government as the primary unit (Washington's eighteen coastal counties were delegated planning responsibility and funds over 250 cities).

COUNTY POWERS

Coastal zone planning and regulation efforts by the state program agency can become complicated in counties and cities with charter, home-rule or jurisdiction-wide authority.

Although Pinellas County, Florida is an unchartered local government containing 26 municipalities, it has several county-wide powers that make it unusual. It is one of the few Florida counties having a manager-council form of government (a 1963 special legislative act authorized the position of administrator).

In coastal zone management practices, the Pinellas County Water and Navigation Control Authority (created by a special act of the state legislature) has the sole authority within the county for establishing the bulkhead line and issuing dredge and fill permits. (In other parts of the state, each level of government may do this.)

Another special act brought the Pinellas County Planning Council into operation. A county-wide comprehensive land use plan was prepared by the Council and became effective upon a 75% radification of the municipalities who must plan and zone accordingly.

A county-wide tree ordinance prohibits alteration of mangrove areas without approval of the Pinellas County Board of Commissioners while an Aquatic Preserve Act governs submerged lands.

It is difficult to compare Pinellas County powers with those of other urban Florida counties. Dade County is a two-tier metropolitan form the only one in the country, while Broward has full charter powers.

GUIDANCE FROM THIS STUDY

(26) Especially in states which allow permissive or special purpose legislation benefitting local units, state program agencies must become aware of urban county

powers. (The pinellas County Planning Council authority exceeds that of the Tampa Bay Regional Planning Council except for review of 'developments of regional impact.')

(27) Before responsibility is delegated to regional or local units, state agencies should understand the statewide implications. (The lesser treatment given to a regional council in favor of Wayne County by the Michigan Department of Natural Resources intensified poor relationships.)

CITY POWERS

Most large cities have home rule powers given to them by state government. Locally initiated charter amendments allow city governments to update their powers fairly easily. Less than twenty city and county governments have chosen consolidation, but New Orleans and Orleans Parish, Louisiana is one of the oldest examples. It is a geographic and political consolidation meaning that its boundaries are coterminuous and a single legislative body and chief executive govern the city. (The City of Baton Rouge is consolidated only functionally with East Baton Rouge Parish. The parish is not incorporated and the Mayor also holds the title of Parish President.)

New Orleans has a mayor-council form of government, characterized by deputies and executive assistants administering the line departments. Chairmanship of the city council rotates monthly.

Although the city must contend with several state authorized special authorities (Levee Board, Port Authority and Water Board), it has a special power within its Planning Advisory Committee. Even these autonomous agencies must submit their plans and permit applications to the Mayor-appointed Planning Advisory Committee, staffed by the city planning department.

In lieu of no Louisiana state coastal zone management laws, the city planning department has drafted legislation which would allow local option in plan preparation and matching funds for local enforcement using the state as a monitor.

GUIDANCE FROM THIS STUDY

(28) In the absence of state coastal legislation, state program agencies should consult with local planners for assistance in drafting legislation.

(29) Because of the varying forms of local government in a given state, the state program agency staff should have a basic understanding of those forms and powers before decisions affecting local governments are made.

SPECIAL DISTRICTS

The final institutional influence found in coastal zone management are state created special districts and authorities. (There are single-purpose districts sponsored by city and county governments but these are of little consequence.)

Authorized by the state but established by public referendum, the Municipalities of Metropolitan Seattle (METRO) agency is the best example among our sites of a special district totally responsive to local needs. Membership on the policy body is composed of the Mayor and City Council of Seattle, the County Executive and King County Council and elected officials from smaller municipalities and unincorporated areas of the county.

To date METRO has only opted to perform two of its authorized functions – sewage connection and treatment and public transportation. The agency is also able to prepare a comprehensive plan for an metropolitan function, but has left such planning to the Puget Sound Governmental Conference. City and County sewer districts support METRO through water rate user charges. The transit operations are self-sufficient, funded through fares, motor vehicle excise taxes, local sales taxes and federal mass transit grants.

The Levee Board of Orleans Parish is a substate agency whose governing board members are appointed by the Governor, serving concurrently with the term of office. A constitutional amendment allows the Mayor and one councilman to serve on the Board.

In matters pertaining the flood protection, the Levee Board is the supreme authority. It builds, maintains and controls all levees on rivers, lakes, canals and other waterways. As an extension of its responsibilities, it built a large landfill on Lake Ponchartrain, which is now a major subdivision (subject to city officials for zoning purposes only). The Levee Board is the developer and manager of beaches, parks, bridges, an airport, a marina within the city. Its own police force regulates activities.

It is supported through a local mill levy, oil royalities and by home sales and rentals (from the landfill subdivision). Both the marina and airport operations have received federal funds.

GUIDANCE FROM THIS STUDY

(30) If there is no local elected official participation on special district policy boards, state program agencies should be cautious in making requirements of local officials in those areas.

(31) Information about the financial support of special districts is vital to state officials.

(32) The provisions and requirements of federal grant assistance to special districts, local governments and regional agencies must be considered by state program agencies working with substate units.

(33) Consideration of local program administration should always first include an examination of the statuatory authority of state agencies and the Governor's power to make executive changes, not requiring legislation.

D. SUMMARY OF RECOMMENDATIONS

It is apparent that few generalizations among the levels of government can be made. We have attempted to select the best examples of the institutional arrangements in our seven study sites, rather than create a new political organization to accommodate the necessary elements of coastal zone management.

In summary, we feel that the best legislative authority is that found in the Washington Shoreline Management Act of 1971. With the exception of an elected head, the Florida Coastal Coordinating Council, part of the Department of Natural Resources, contains all the necessary planning and management elements. It could be improved through the use of a line technical advisory commission such as the Water Resources Commission in the Michigan Department of Natural Resources.

For purposes of coastal zone management, the Comprehensive Planning Organization of the San Diego Region was the most useful agency serving as a conduit between local governments and the state program agency.

The interdependence of programs and services in Wilmington and New Castle County was the most cooperative illustration of city and county relationships.

Although neither Pinellas County, Florida nor the City of New Orleans in Louisiana are the most important local governments in our study, they represent county-wide authorities and the power of consolidated local government.

Special districts are important in every site. From a statuatory provided services viewpoint, the METRO agency of Seattle and King County was selected as a compliment to local government while the Levee Board of Orleans Parish was found to be the most interesting, its powers resembling those of general purpose local governments.

State officials responsible for a coastal zone management program must treat their urban areas in a much different manner. The unique urban characteristics of: developed land in permanent use; number of people dependent on water resources; powers

of local governments and special districts; and the lack of a natural organizational relationship between the state and urban local governments makes urban coastal zone management a unique challenge to state governments.

CHAPTER IV

NEEDS OF URBAN PLANNERS

IV. NEEDS OF URBAN PLANNERS

A. INTRODUCTION

Since ancient times, the coastal areas of the world have been the pathways of commerce and conquest. Major cities developed around deep-water harbors when ships were the major vehicles of transportation, commerce, and communications. The coasts inspired poets and painters, lured vacationers, and in the warmer climates, served as the breeding grounds for the sea life which feeds the world.

In the United States, major cities developed along the eastern coast, but with industrialization, as railroads and highways speeded up ground transportation, and as communications took to the air waves, focus on docks and wharves dimmed. The population spread across the country, clustering around other waterways and rail centers near the natural resources which fueled the fires of industry. Cities began to view water in the more limited role of a resource vital to residential and industrial development. The technical business of managing commercial shipping was designated to special authorities.

In the past few decades, our economy has changed from a production economy to a service economy. More people have had more leisure time, fewer people are needed in agriculture, mobility has increased, and people are less bound to the industrial centers of the nation's heartland. They are increasingly choosing to live and to visit in areas of scenic and climatic attraction: the coastal areas. Today, over half of the nation's population lives in the counties bordering the oceans and the Great Lakes. In the decade of the sixties, the greatest population increases occurred within fifty miles of the nation's borders, the urban coastal zone.

The growing population pressure on our finite shores has resulted in increased pollution of coastal waters, alteration of fragile coastal ecosystems, and destruction of marine life, which threatens not only aesthetic and recreational enjoyment, but vast food producing industries. The need for intelligent planning and management of our coastal resources has become apparent and federal, state and local governments have begun to respond. To date, little has actually been done beyond the passage of necessary legislation: the National Environmental Protection Act, the Water Pollution Control Act and the Coastal Zone Management Act at the federal level has triggered some related legislation at the state level. Local officials are beginning to become aware of the need to take a more comprehensive look at their coastal areas and to establish goals which will facilitate balancing competing demands for coastal resources.

"Coastal planning," however, is as lacking in definition as is the term *coastal zone* itself. Coastal management is seen, more often than not, as simply the management of commercial ports. "City planning" and "land use planning" have been the accepted terminology and, in fact, the orientation of most professional planners. Planning for the

use and abuse of water areas has largely been the domain of the engineers and few, if any, jurisdictions have provided for the proper interface between land use and water use planning.

Planning and management of the coastal zone in urban areas is characterized by a number of problems for which there is no easy solution. Extreme governmental fragmentation and the sheer numbers of governmental units in most metropolitan areas make the establishment of goals for the coastal zone and the implementation of management policies difficult to achieve. Compounding the problem of jurisdictional complexity is the lack of avenues of communication between the urban planners, the water engineers, the port directors, the research biologists, etc. The land orientation of most planners has led to some less than imaginative approaches to the planning and management of the coastal zone. Traditional gaps in communication between the planners and local government administrators is evident here.

B. NEEDS OF PLANNERS

What are the needs of planners in the urban coastal areas? Certainly, an awareness of land use techniques is necessary. And in this basic area, it is not surprising to find that more than sixty percent of the planners contacted in this study had specific training in urban planning, many having masters and doctoral degrees. This training traditionally has emphasized skills that are useful and needed in coastal zone management:

- *Demographic analysis*
- *Economic base studies*
- *Cost/benefit analysis*
- *Land use controls*
- *Aesthetics*

Population projection and analysis in coastal areas is important since over fifty percent of the population already lives within fifty miles of the water, and growth in those urban areas continues to increase at a rapid rate.

Cost/benefit studies are necessary to demonstrate development options which would be beneficial or desirable in the coastal zone. Land use studies are helpful in producing results needed to form a data base for controls on current and future decisions.

Urban planners already have many of the tools which can be used and, in some instances, are being used, to provide a better balance in the allocation of coastal zone resources:

- *Zoning*
- *Subdivision regulations*
- *Pollution control regulations*

- *Environmental Impact Statements*
- *Permitting procedures for dredging and the disposal of dredged material*
- *Physiographic mapping*

The same implementation tools used to control land development in other parts of the urban area can be used in the coastal zone. In dealing with the waterfront, subdivision regulations must be expanded to include some activities not found inland. Among those are: the effect of various kinds of landfill and its drainage into water supply; public access to the waterfront and the water; port facility development; dredging and disposal of dredged material; up-to-date materials and engineering in marine construction; salt water intrusion of drinking water quality; and high water patterns. The knowledge required to design these water-oriented regulations include technologies not currently included in urban planning programs.

Tax incentives are another tool used in redevelopment of the cities and counties which are useful in coastal zone management. At one time, in Clearwater, Florida, the city gave a tax advantage to developers who would build commercial or recreational buildings on the water. The philosophy on waterfront development has changed since that time and an effort is being made to alter that procedure. In other places, tax incentives can be used similarly to encourage non-water oriented businesses, such as warehousing, to move from the coast to another section of the city.

Because of their training, urban planners are always stronger in land-related rather than water-related areas. Their main interest in water is in knowing how much is available to the community for further residential and industrial development. Sewer and water facilities planning is considered to be an engineering job, the responsibility of the public works department or an independent authority. Since the coastal zone is a unique area in which land and water play equal roles, water planners are not the answer to planning the coastal zone. They can be as non-land oriented as urban planners are non-water oriented.

Urban planners need to know more about the nature of water and about water technology. The urban planners interviewed in this study indicated gaps in their expertise and a recognition of the need for generalized training and information relating to:

- *Groundwater behavior*
- *Tidal flow and flushing rates*
- *Wind currents and wave action*
- *Estuarine resources*
- *Water aesthetics*
- *Geomorphology*

- *Marine biology*
- *Botany*
- *Biology*
- *Zoology*
- *Off-shore drilling technology*

It was generally agreed among the people interviewed that although a scientific background was not necessary for urban planners, there was a need for a better understanding of the biologic and hydrologic interface between the land and the water. In light of the fact that 78 percent of the earth's surface is water, some reorientation of the urban planner's viewpoint may be desirable. As with water and sewer planning, planners have generally left ports to their own authority or department. The construction of ships, the size of the docks, the modes of loading and unloading, and the administration of the port is a speciality few planners have. Yet in six out of seven urban coastal zone sites, the port took up the major space of the downtown waterfront.

With a new awareness of the coastal zone, some city and county planning offices have a new realization of the port as a potential resource. The Port of Wilmington, Delaware, is not only self-supporting but also revenue producing for the city. In Detroit, the city planning office is joining with Wayne County in a state-supported study of the Detroit waterfront. The proposed Centroport in New Orleans, over a period of twenty years, would move shipping activities from the city docks down the river and closer to the Gulf of Mexico in what is now a rural area. Seattle's port promises to become the largest containerized port on the western coast. It is becoming increasingly important as the transport center between Alaskan oil and the mainland United States. A look at the coast from the water rather than from the land may lead to new appreciation of the stark fact that if, through over-development, we destroy the edge of the sea, we destroy the life chain in the productivity of the oceans.

Some implementation and enforcement tools for new water-oriented coastal zone regulations already exist. They may take the form of building codes and code enforcement for docks, wharves, marinas, and other waterfront construction. While the state licenses pleasure crafts, local governments can restrict certain waters for swimming or water skiing. Federal water pollution control standards and Environmental Impact statements offer local governments another tool to control development or activities on and in the water.

Planners have dealt sparingly with subaqueous lands and even less with harbors. For instance, the states claim jurisdiction over bottomlands but, on occasion, have given over this authority to localities. Shipping channels and harbors are designed, constructed and maintained by the Constitutional authority given to the U.S. Army Corps of Engineers, but the ecological disturbances caused by the continual dredging and storing of the dredged material create problems which directly affect the local community. Planners need to know the federal and state laws on bottomland ownership and on navigable waterways.

Greater understanding of energy was cited as essential to the urban coastal planner to raise the planner's consciousness of the possibility of harnessing the "free work" of the winds and tides in enriching the natural systems. Power plant citing requirements are basic knowledge to the planner.

Here the need for a team approach, bringing together the various disciplines which are needed to deal with the complex interface between land and water is apparent. Appreciation of the impacts of the natural systems and general communications skills with elected officials and the interested public as well as the technical experts appear to be as important as knowing how to prepare subdivision regulations.

In addition to the need for some training designed to equip the urban planner to communicate with the specialists in coastal zone disciplines, it seems that the traditional land use planning emphasis is inadequate in another area.

Planners dealing with coastal problems are seldom dealing with a single governmental agency, a city or a county, as is apparently assumed by many planning curriculums. Although the web of governmental agencies is present everywhere, it is nowhere more apparent than in the coastal zone, particularly in urban areas. In order to consider the coastal zone in concrete terms, the urban coastal planner must be an expert in inter-governmental relationships and have an essential appreciation of public administration and the governmental institutions which are a part of the urban area. Independent special districts and Authorities further complicate the general landscape.

Urban coastal planners need to be conversant with state and federal legislation and programs relating to the coastal zone, particularly in view of recent public awareness of the vulnerability of the area where land meets sea. Most important among recent legislation is the National Environmental Policy Act of 1969, the Coastal Zone Management Act of 1972 and the Federal Water Pollution Control Act Amendments of 1972. Had the National Land Policy and Planning Act of 1974 survived, knowledge of it would have been vital to coastal zone managers. Additionally, many of the coastal states have passed legislation protecting coastal lands and waters. This has led to a plethora of special permits and other regulations with which local planners and administrators need to be familiar.

There is not adequate understanding of the federal programs directly impacting on the local coastal zone such as water quality programs (Environmental Protection Agency) and the Corps of Engineers dredging activities. Such federal programs, such as Sea Grant marine research (Department of Commerce) Environmental Systems (National Science Foundation, RANN), as well as the Bureau of Sports, Fisheries and Wildlife (Department of the Interior) provide information sources and technical resources to the local planner and the community but are often not utilized. It is likely that a coastal question in New Orleans could involve the city/parish planning commission, the Port Authority, the Levee Board, the State Wildlife and Fisheries Commission, the State Health Department, the Army Corps of Engineers, the Environmental Protection Agency and the LSU Sea Grant program.

C. SHARED PERCEPTIONS

Most urban planners share common perceptions as a result of their professional discipline. They have similar approaches to zoning, sub-division regulations, demographic and economic base studies and so forth. As a result, planners from neighboring jurisdictions often are successful in working to solve some of their mutual and area-wide problems such as transportation planning.

At this time, however, they do not share common perceptions of the coastal zone. This area differs in character from state to state and even varies within states. The boundaries of the coastal zone may be described in terms of feet or miles from a variable tidal mark, bay county or census enumeration district. There may be primary coastal zones and secondary coastal zones, physiographic zones and planning zones, but they are interchangeably, and confusingly, all called the coastal zone. State and local elected policy makers may have even different understandings of the coastal zone and of its boundaries.

There are some common perceptions of the urbanized areas of the coastal zone. Some state officials view the metropolitan (urban) areas, with their confusion of jurisdictions, local feuds and competing pressures, as potential political suicides, better left alone.

There is no doubt that the big city coast has political problems. It has physical problems as well. Its coastal zone is densely developed with a port, railroads, warehouses, recreational, industrial and residential facilities. It does not fit a common perception of a coastal zone: an underdeveloped rural area where, it may be imagined, a good management program will protect natural areas from being damaged by unplanned development. Among some planners and officials, the urban coast is presumed to be too far developed to salvage. Several local government officials in Delaware said the Wilmington waterfront should not be included in the coastal zone because there is no longer anything of ecological value to preserve or protect. San Diego planners commented to the contrary: that because so much of the urban coast was highly developed, an extra effort ought to be made by head officials to preserve from despoilation whatever was not fully developed.

D. CONCLUSIONS

The state and federal governments are forcing local governments to make decisions identifying their attitude about their own waterfront. The positive urban coastal planner must evaluate the coastal zone for local administrators and point out some alternative policies which will be compatible with the long range city plan. Effective decision-making must be based on solid facts; therefore, planners have a great need to be familiar with the wide variety of technologies, legislation, and jurisdictional perogatives of the land and water of the coastal zone.

It would not solve the coastal problem to turn urban coastal planning over to water engineers because they lack the other planning disciplines for designing options and evaluating their sociological, economic, and political effects. Nor does the answer lie in

training an urban planner in one of the water technologies, for no single science provides all the solutions. Also, since developing technologies leave even constant practitioners in the field frustrated in keeping up with new discoveries, it is doubtful that the full-time planner could stay abreast of his single specialization.

As in many phases of his work in the urban area, the planner in the coastal zone must be the instigator of team efforts. Coastal planners have sufficient awareness of the problems and possible solutions to recognize the technologies involved. The planner should be sufficiently conversant with the scientific terms to act as a catalyst, synthesizing the expertise of the interdisciplinary team. To provide effective guidance, the planners most useful background would be in the skills of analyzing tradeoffs through sound economic and environmental disciplines, backed up by access to a broad range of experts and the latest technological information. Naturally the support of local elected officials is vital.

E. GUIDANCE FROM THIS PROJECT

(1) Serious consideration should be given to a formal relationship between the Sea Grant Program and the Coastal Zone Management Act. Many of the research and technology needs of local, regional and state planners can be met by the Sea Grant Program. A mechanism needs to be established to make the results of the Sea Grant Program readily available to urban coastal zone planners and to provide more continuous input from local planners in the research designs.

Set up in 1966 by federal law, the Sea Grant Program gives grants (up to 2/3 of the total cost of the project) for research in marine related developments in utilizing and conserving marine resources to state land grant and other universities. Most of these institutions are in the coastal area as are most resource conflicts. The grant application must include an explanation on how the research is to be used. Often it is directly related to information needed by state and local officials in dealing with the coastal zone. CZM planners and local university personnel should be made aware of the program and encourage them to initiate projects needed to carry forward their coastal plans. The research and technical information needed by local planners and administrators could be well provided by the sea grant programs.

Sea Grant is unequal in its effectiveness from state to state. In Delaware, which has a total population of 500,000, three counties and a handful of cities, the Sea Grant faculty at the College of Marine Resources, University of Delaware, serves on every state and local board dealing with the coastal zone. In Louisiana, the Sea Grant faculty from several disciplines at the University of Louisiana at Baton Rouge provided the leadership in preparing the *Wetlands Prospectus*.

Sea Grant is not the only program which is helpful to urban planners and administrators, but it has a legal mandate to carry on research, education and advisory programs for the conservation and management of marine resources. This mandate is compatible

with the needs of the Coastal Zone Management program and the relationship between the two should be fostered and expanded.

(2) There should be a review of the curriculums of the urban planning schools and an encouragement to include courses dealing with specific coastal zone problems, particularly interdisciplinary courses designed to give the urban coastal planner a general understanding of the coastal ecosystem. Public administration courses, communications and group dynamics courses should be encouraged for inclusion in the planning curriculums.

(3) Consideration should be given to providing grants to coastal universities to provide special training programs, seminars, and workshops designed to meet the needs of local government planners and managers working on coastal management.

Sea Grant has helped develop a broad curriculum for universities. The University of Rhode Island and Texas A&M are two of the schools offering a one-year masters program in Marine Affairs. Course work covers marine ecology, law, economics, oceanography, and fisheries. The course provides a good overview of the land and water problems in the coastal area that is very valuable for planners and administrators who, lacking full scale expertise, must make far reaching decisions.

This course, or a similar one, should be promoted in universities in coastal states, with a concentration in those eleven states where more than 50% of the coastal population is located. In areas where there is enough interest, the course should be redesigned as a two-year course which suits the work schedules of planners and administrators particularly.

(4) Many scientistics and coastal resource experts have produced a great deal of literature which would be of value to coastal planners, but there is not a general awareness of these materials. An index of this literature should be up-dated and these information services should be promoted to local planners and policy makers.

(5) Urban planning curriculum must include information on water as well as land use in an integrated format.

Principles and Practice of Urban Planning is a major volume on the administration of local planning which was published in 1968 by the International City Managers Association. Of its 607 numbered pages, the index lists references to water on only thirteen pages:

> *Ports and the city plan, 175-77*
> *Water and Sewage systems, 232-39*
> *Waterfront subdivisions, regulation, 477*
> *Waterways, freight traffic on, 164-67*

This is indicative of the recent awakening to the need for planners and administrators to deal with the coastal zone.

(6) The Office of Coastal Zone Management should collaborate with the American Institute of Planners (AIP) and the American Society of Planning Officials (ASPO) to draw up a mailing list of the state and regional planning associations and local planning officials in the coastal states; communities who should get special mailings of coastal zone information drawn from the experiences gained under the Section 305, 306 and 312 grants.

(7) The Office of Coastal Zone Management should promote coastal zone panels or seminars at national and state planning association meetings.

(8) The Office of Coastal Zone Management should encourage articles by experts to be published in the journals of the national planning associations as well as those of the National Governors Conference, National League of Cities/U.S. Conference of Mayors, National Association of Counties and International City Managers Association.

(9) The Office of Coastal Zone Management should contact recognized urban planning degree schools (list attached), especially the fifteen in coastal zone cities, and make them aware of some of the Sea Grant programs which could be used to enrich their curricula.

(10) Contacts should be made with a university or a combination of public interest groups to organize a major spring conference of urban planners to discuss the unique aspects of Coastal Zone Management, particularly in urban areas.

(11) Local planners must discover direct methods of interacting with and influencing elected officials in their coastal zone management policy decisions.

(12) Local planning departments must begin to include interdisciplinary and water resource planners on their staffs. Coordination with Public Works and Transportation Departments concerned with coastal impact should be effectuated.

APPENDIX A

CASE STUDIES

CASE STUDY

NEW ORLEANS/ORLEANS PARISH/LOUISIANA

SITE DESCRIPTION

Fully one-third of the State of Louisiana is fertile delta of the Mississippi River. Forty-five percent of the state consists of coastal and floodplain wetlands. Within that ecologically vulnerable area is eighty percent of the population and eighty percent of its manufacturing capability. Moreover, fifty percent of the state's tax revenues are generated here. The coast along the Gulf of Mexico is about 397 miles.

Louisiana is a leading producer of oil and natural gas, with wells on and off-shore. Its refineries produce chemicals and other petroleum products in great quantity. Farming and fishing are major parts of the economy. It ranked twentieth in population in 1970 with 3,643,000 people, an increase of 11.9 percent in that decade.

From the time of its French-colonial origins, the site of New Orleans was considered ill-chosen because of its low swampy character. It is only five feet above sea level. It has two waterfronts: the Mississippi River with the largest port in the country; and Lake Ponchartrain, heavily leveed to protect the city against the high waters that blow up in hurricane force winds. It is surrounded by a very productive marsh-estuary system which has a heavy influence on the total fish production in the northern gulf. Though the city lies 100 miles up the Mississippi River from the Gulf of Mexico, its port has been the second busiest in the United States since 1940.

LOCAL GOVERNMENT

New Orleans and the Parish of Orleans are coterminous jurisdictions. The consolidated city-parish is governed by an elected mayor and seven council members. It has had a home rule charter which was adopted in 1954. The new constitution, effective in January 1975, should expand home rule powers. The council has a revolving chairman which changes every month.

Comprehensive land use planning and zoning within the city-parish is conducted by the City Planning Department. Any significant land use decisions are first submitted to the Planning Advisory Committee and are then referred to the Planning Commission. Final recommendations go to the City Council, charged with the ultimate responsibility for land use. However, this pattern is somewhat altered in jurisdictional disputes on the two waterfronts in the city. The extensive land fill on Lake Pontchartrain comes under the authority of the Levee Board (planning, building and regulating). On the river, the New Orleans Port Authority and the Levee Board have jurisdiction, except for zoning and the use of environmental impact statements.

Currently under review is a draft of a coastal zone management plan prepared by the City Planning Department. In it, federal, state and local services pertinent to the water front are delineated. Land use is classified for preservation or development. The city will present its plan to the state legislature in hopes that it will be incorporated into any future state coastal zone plan.

The New Orleans Sewerage and Water Board is a semi-independent authority created by the state legislature. It provides water, sewage treatment and drainage services to New Orleans residents by districts. A mill levy pays for sewer while water is directly billed to the consumer. On the Sewerage and Water Board are two representatives of city government (mayor and councilman) who are responsible for setting rates.

REGIONAL AGENCIES AND SPECIAL DISTRICTS

Regional Planning Commission

New Orleans is a member of the Regional Planning Commission for Jefferson, Orleans, St. Bernard and St. Tammeny Parishes which was created by state enabling legislation. There are 21 members of the commission including: chief executive and chairman of each parish council, other public officials, citizens from each parish, and the regional highway director.

The main function of the four-parish planning commission is to conduct regional comprehensive planning involving housing, land use, open space and recreation, utilities and urban design. They are the official A-95 clearinghouse under the regulations of the Office of Management and Budget and have been designated by the governor to do transportation planning for the region, and are funded by HUD and DOT.

The commision operates on a one man/one vote basis which gives New Orleans 25 percent of the decision making power even though it represents 54 percent of the regional population, and pays dues on a population basis. The conflict is urban/suburban between Orleans Parish and Jefferson, and urban/rural between Orleans and St. Bernard. Despite one man/one vote, the other parishes feel that Orleans will always dominate. Orleans, meanwhile feels ineffective.

Coterminous with federally established Economic Development Districts (EDD), the regional planning commissions are also designated as sub-state planning districts.

Orleans Parish Levee Board

The Levee Board of Orleans Parish was authorized under the Louisiana Constitution in 1890. In matters concerning flood protection, its authority supercedes all local and state authorities. The governor appoints the members of the levee boards and they serve concurrently with his term in office. Those appointed usually have business and community

interests. Eight years ago, there was a constitutional change which allowed the mayor and one city-parish councilman to serve on the Levee Board.

The Levee Board is charged with the control, maintenance and repair of all levees, whether on river, lake, canal, or elsewhere in Orleans Parish. On the river, it can appropriate property at its assessed value. On the lakefront, it can reclaim lake bottom for development purposes.

Under its jurisdiction are 129 miles of levees and floodwalls, including 27 miles of Mississippi River levees and 94 miles of inner levees within the city. A large landfill area on Lake Pontchartrain, begun by the Levee Board in 1922, has become a major subdivision in the city and is totally under the jurisdiction (except for zoning) of the Levee Board. Furthering its broad powers, the board has become a developer, a builder and administrator of beaches, parks, an airport, a marina, bridges, a police force and lifeguard service. Levee Board activities are supported by a 5½ mill levy, oil royalties, home sales and rentals (from the landfill subdivision) resulting in an $8 million dollar budget.

New Orleans Port Authority

The Port of New Orleans was established by statutory acts of the state government in 1896. It has jurisdiction in Orleans, Jefferson and St. Bernard parishes and responsibility for directing trade and commerce in the Harbor of New Orleans. Policy is set by the Board of Commissioners of the Port of New Orleans who are appointed by the governor following the suggestions of seven business and civic organizations in the three-parish district.

One unique power the Port Authority has comes from the Napoleonic Code being engaged in commerce, the Port Authority has first use of the banks and batture. The port does not own the banks, but they have first access to them for trade and commerce. Therefore, they do not lease wharves (that would be in conflict with the common good) but they do give preferential assignments to consistent users on the premise that the berth can be reassigned when it is not in use. The Authority could legitimately take over, without compensation, any privately built dock or wharf within its own jurisdiction. Traditionally, if such private facilities are constructed with prior knowledge and consent of the Port Authority, there would not be an attempt to take it over.

The Port Authority's rights to the banks and batture runs inland to the first parallel street behind the waterfront. The city owns the approaches, but its zoning ordinances are powerless inside the port jurisdiction. Seaward from the low water mark, the river bottom land is under state authority, but on the banks, the Port Authority supercedes the state. It can be overruled by the Levee Board and the federal government.

The Port Authority has no taxing authority. It has received $800,000 from the state government, a pass-through share of the gas tax. For development capital, it floats bonds

backed by the state and in 1969, received a state grant of $30.5 million. The Port receives payment for services and is basically self-supporting, but thinks the federal government should share part of the $100 million in customs that come through the Port of New Orleans every year.

To fully exercise its mandate, the Port maintains a bookkeeping operation, its own engineering department and an operations division. It has an eighty-man policy department headed by a sheriff who enforces the civil and criminal ordinances the board is authorized to pass. It also maintains two fireboats, Trade Development Regional Offices in the United States and abroad, a Foreign Trade zone within their own jurisdiction and the Rivergate Exhibition Trade Center in downtown New Orleans.

STATE GOVERNMENT AND LEGISLATION

State Government

Although the state Planning Office has been designated as the official coastal zone management agency, the Louisiana Coastal Commission (LCC) suggested they were the appropriate body to handle formation of a coastal zone program. The commission is considered as a regional body, limited in authority to 12 parishes in the southwest part of the state whose aims have been development through industrialization and the encouragement of better shipping and transportation. Opposition arose when the appointment of the LCC was under consideration, and when the legislature failed to confirm the LCC as the authorized coastal aone management agency, the governor appointed the state Planning Office as the lead agency. They are actively pursuing the first year's program.

In June 1974, the federal government made a coastal zone management planning grant to Louisiana State Planning Office of $260,000. The state added its share of $134,090 for a total of $394,090 for the first of the three-year project. The application for CZM planning money was drawn up at the state level, by four agencies: the state Planning Office, Wildlife and Fisheries Commission, Public Works, and the Sea Grant program at Louisiana State University.

One of the problems with forming a coastal plan for the State of Louisiana has been the diversity of state agencies and commissions involved in some facet of coastal management. Under the new government reorganization, 250 agencies will be consolidated into twenty major departments. The following six organizations are most prominently involved in CZM. The Wildlife and Fisheries Commission reviews water quality and impacts on fish and wildlife in the coastal zone. It controls dredge and fill permits; assists with water pollution control and advises governor on environmental impact matters. The Louisiana Department of Public Works is responsible for water resource development, drainage and flood control (levee boards), sponsors all waterway projects in the state. The Louisiana State Land Office protects state land interests, issues recreation permits for navigable waterways. The Louisiana State Mineral Board grants leases for minerals beneath state-

owned lands. The Louisiana Board of Health is responsible for sewage disposal and administers parish health units across the state. It investigates health hazards in air and water, and the water supply. The Louisiana Department of Conservation regulates oil and gas activity.

One of the goals in the first year of CZM planning will be an identification of all state agencies involved in the coastal zone and a proposal to give them all some unity and direction.

Legislation

Louisiana has no major state legislation concerning protection, conservation or management of its coastal zone. Pertinent legislative actions follow:

The Advisory Commission Coastal and Marine Resources, 1971, required the Commission to develop and distribute a CZM plan by September 15, 1973. It was to consider socio-economic and legal factors, monitoring systems, transportation, power development, waste management, recreation, land use and resource management and to recommend appropriate state agencies to implement the plan.

The Louisiana Wetlands Prospectus was the document produced by the commission. Since wetlands are the major part of the state's coastal area, the study emphasized wetlands and recommended that a Coastal Resources Commission of 11 members (seven special interest representatives, three state agency heads, one local jurisdiction representative) oversee the program. Long range planning would be taken over by the state Planning Office. Actual management would be handled by an Office of Coastal Zone Management set up in the Department of Fish and Wildlife and Development permits would be administered by this office. (Alternative management offices might be Public Works, State Land Use, Conservation Department, or local governments implementing a state plan.) Long range research would be done by the state Sea Grant program at Louisiana State University. A version of this proposal is under legislative consideration as House Bill 496.

The coastal zone planning area suggested by the Louisiana Advisory Commission on Coastal and Marine Resources is a tier, two parishes deep from any give body of tidal water. That adds up to a total of 26 of Louisiana's 64 parishes (10.3 million acres) and includes New Orleans and Orleans Parish.

CASE STUDY

WILMINGTON/NEW CASTLE COUNTY/DELAWARE

SITE DESCRIPTION

Wilmington, Delaware, is 62 nautical miles from the Atlantic Ocean. There, the Christina River flows into the Delaware River and forty miles downstream, the river widens to become the Delaware Bay.

Wilmington and surrounding New Castle County make up the upper third of the land area of Delaware. Through the state run the main highways and railways of the East Coast megalopolis, giving Wilmington easy access to New York, Philadelphia and Washington, D. C. The low rolling hills of the Piedmont Plateau run across the top of New Castle County and into the flat coastal plain where the other two counties, Kent and Sussex lie on fertile farmland edged by beaches, bays and marshland.

Manufacturing provides 42 percent of the income in Delaware, with petroleum refineries in the northern part of the state producing the major products: chemicals and related items. The plains of the southern counties are heavily agricultural, with an ever growing recreation industry centered mainly on the 29-mile ocean shoreline. As a whole, the shoreland is little developed. Both the federal and state governments hold substantial acreage on wildlife refuges throughout the state, much of which is located in the coastal area.

LOCAL GOVERNMENT

Although the population of New Castle County is 385,856, it comprises seventy percent of the population of the State of Delaware. The state capital, Dover, and the largest city in the state, Wilmington, are located in the county. The jurisdictions are part of a tri-state SMSA which includes New Castle County, Delaware; Salem County, New Jersey; and Cecil County, Maryland. Between 1960 and 1970, the growth rate of the area was more than twenty percent, in contrast with a central city decline of 16 percent. The length of the coast of New Castle County is 43 miles, including Wilmington which owns five miles, three of which are occupied by the port.

New Castle County is a charter county governed by an elected county executive and a seven-member council. The county planning department has land use planning and zoning authority over all unincorporated areas. Although, the seven towns in the county have full planning and zoning authority within their own jurisdictions, they frequently enter into contract arrangements with the county in areas where they lack expertise.

The county comprehensive plan has been at odds with the City of Wilmington's plans for an urban corridor in the county with a regional shopping center slated to be built on the city's edge. Wilmington believed this proximate location would be destructive to its own efforts to rebuild downtown, and the county cancelled the plan.

The county and the state plans conflict also. Of the 78 companies having major impact on the state, 76 are in New Castle County and have undeveloped land holdings in the coastal zone. Within the plan is the inclusion of such industrial development as could occur without undue environmental impact, but the strong state law prohibits any industrial development on the coast.

A critical water problem exists in New Castle County. The state Public Service Commission holds the authority over all county water service (Wilmington and Newark have separate services) and franchises its distribution to two independent companies. The county can suggest new areas of service, but it has no authority to regulate water or sewage service. Each year, individual users are billed for water and sewer. Sewage disposal is handled under a contract with Wilmington's large treatment plant, located in the port vicinity. The county reciprocates by allowing the city to use the adjoining land fill for solid waste disposal.

The county Water and Sewer Management Office has received the first Section 208 water resources planning grant in the county, amounting to $1.5 million. The study is geared to protect and improve water quality, to look into waste water management, salt water intrusion, and the adequacy of sewage facilities for five and twenty years hence in light of projected industrial growth.

The City of Wilmington declined in population by 16 percent between 1960 and 1970 losing many citizens to surburban New Castle County. Delaware's largest city is governed by a mayor and council. The position of chief administrative officer was created by council ordinance.

Planning for the city is handled through the city Department of Planning and Development and the seven-man Planning Commission subject to the approval of the mayor and City Council. The Zoning Board of Adjustments reviews rezoning requests and makes recommendations to the Planning Board.

Unlike the county, Wilmington has an adequate water supply from the Brandywine and Christina Rivers. The city Water Department distributes this in the city and part of New Castle County. The Sewage Disposal Division of the Public Works Department treats city and county waste alike.

Management of the coastal zone area falls mostly to the state under the authorities given it in the Environmental Protection Act. The city is represented in the state advisory boards concerning air and water pollution. The city believes it has nothing of ecological

value to protect and that the coast is already too developed to receive any benefits from being considered part of the coastal zone. One vulnerable area, the Port of Wilmington, is exempt from the industrial development restrictions in the state Coastal Zone Act.

REGIONAL AGENCIES AND SPECIAL DISTRICTS

Wilmington Metropolitan Area Planning Council (WILMAPCO)

The regional planning body for the Wilmington SMSA which includes New Castle County; Cecil County, Maryland; and Salem County, New Jersey is known as WILMAPCO. Each of these members sends one county official and one official representing the municipalities in that jurisdiction. Wilmington has its own representative. The seven member board operates on a one man/one vote basis. WILMAPCO is supported by a per capita assessment of its member jurisdictions and through federal grants. The major sources are 701 funds from HUD; UMTA; and FHA pass-throughs from the state. WILMAPCO is an A-95 clearinghouse and comments on all applications for federal assistance filed by local jurisdictions.

Delaware River Basin Commission

Like many other river basin commissions, this agency is an interstate-federal compact which was created through the agreement of several governors. The states who are members are Delaware, New Jersey, Pennsylvania, New York. Since 1961, it has exercised broad powers on conservation, control, use and management of water in the Delaware River watershed and must approve all projects affecting water resources.

Metropolitan Philadelphia Air Quality Control Region

Established in 1968 for evaluation, planning and coordination of air pollution control, the region includes Bucks, Chester, Delaware and Montgomery and Philadelphia Counties in Pennsylvania; the Counties of Burlington, Camden, Gloucester, Mercer and Salem in New Jersey and New Castle County in Delaware. EPA approves each unit's air quality plan before granting federal assistance. In Delaware, the Department of Natural Resources and Environmental Control makes recommendations on local plans which are passed on the EPA.

Port Authority

The Port of Wilmington is a part of the Department of Commerce of the city. It operates wharves, docks, and warehouses and leases land to a number of suppliers and industrial processors. The Port Authority is entirely self-supporting through the rental of space and various wharfage and dockage fees. Foreign cars are the most visible incoming cargo.

The Delaware River and Bay require constant dredging to keep the forty foot shipping channel clear, and that is hardly deep enough for the new heavy cargo ships. It is in cooperation with the local government that the Corps has used Cherry Island, a wetland island in the harbor area, as a recipient for dredged material. The island is zoned industrial. The major building on it now is the sewage treatment plant.

STATE GOVERNMENT AND LEGISLATION

State Government

The authorized recipient of federal coastal zone planning grant is the state Planning Office. The office, which is directly responsible to the governor, will handle the major coastal planning activities in its Coastal Zone Management program. In June, 1974, the federal government made a grant of $166,666 to Delaware to plan the management of the coastal zone. The state share of $83,334 made a total of $250,000 to conduct the first of a three-year planning program. The other major state agency participating in the program is the Department of Natural Resources and Environmental Control, which has the primary responsibility for managing land and water resources. The Department includes the: Division of Parks and Recreation; Division of Fish and Wildlife; Division of Environmental Control; and Division of Soil and Water Conservation. Although the state Planning Office fully expects to control both the program and funds provided by the federal coastal zone grant, the Department of Natural Resources and Environmental Control feels it has a vested interest in the planning as the probable implementers of the program as well.

A third participant, the Coastal Zone Management Committee was formed by the governor in January of 1974. It consists of 23 representatives from government agencies, local jurisdictions, and universities to act as advisors to the state Planning Office and provide a forum to coordinate development of goals and resolution of conflicts. The committee has no funding and is loosely organized, but has been given official status by executive order of the governor.

The University of Delaware College of Marine Studies has been named a major participant through its sea grant program. It does research in the coastal zone and members of the staff serve on local and state boards dealing with many aspects of coastal zone planning and management.

Legislation

In 1971, the Delaware General Assembly passed the Delaware Coastal Zone Act. It was the strongest piece of coastal zone legislation passed by any state. It bars development of all heavy industry as well as post and dock facilities within two miles of the Delaware coastline. Any manufacturing uses or expansion of existing facilities are controlled by permits granted by the state Planning Office. (Recently, there have been

efforts initiated by city, county and business to have the law repealed in favor of a less stringent regulation which would consider each development proposal separately. Both Wilmington and New Castle County are development oriented and feel that the state permit system impinges upon local planning, zoning and growth policies.)

The Governor's Task Force on Marine and Coastal Affairs described the Delaware coastal zone as including the Atlantic Ocean, the Little Bays, the C&D Canal, the Delaware River and Bay; and those lands and wetlands which are affected by their proximity to those waters. Seaward, the zone goes to the low water mark on the New Jersey shore in the northern part of the state; to the middle of the Bay and to the three mile limit on the Atlantic Coast. Landward, it includes an area at or below ten feet above the mean sea level. However, the 1971 Coastal Zone Act set up a series of state maintained roads along the coasts as the coastal zone limits. These roads approximate the primary zone described by the Task Force.

The Beach Preservation Act of 1972 was passed to prevent the distruction of the dunes. It established a protection zone of 1,000 feet from the high water line or from the nearest road. It also established an erosion protection program. Both sections are under the authority of the Department of Natural Resources. Only recently have the necessary regulations been adopted, making the statute enforceable.

The Wetlands Act of 1973 prohibits dredging or filling the wetlands. Other proposed uses must be cleared by permit within the Department of Natural Resources.

The Environmental Protection Act of 1973 is considered to be the first comprehensive measure in the legislation affecting the coastal zone, one destined to be a major tool in coastal zone management. It closes the loopholes in the many and various pieces of legislation passed before the state government reorganization in 1971 when there were half a dozen different agencies dealing with environmental matters. It established penalty provisions and clarified duties and powers of the Division of Environmental Control.

CASE STUDY

DETROIT/WAYNE COUNTY/MICHIGAN

SITE DESCRIPTION

The State of Michigan lies on two peninsulas surrounded by four of the five Great Lakes. It has the longest coastline of any inland state, 2,232 miles of mainland and island shore, much of which is subject to erosion and serious flooding when the lakes are at their high level. There are permanent and recreational residences on nearly a third of the shore. Forests cover nearly half the coast while farms and open space occupy the remainder. Only five percent of the coastal area is used for commercial, industrial or public facilities.

Detroit and Wayne County are located on the southeast shore of Michigan, a short distance north of the Ohio State line. The sixty miles of shoreline in this highly urbanized and industrialized strip include waters of Lake St. Clair, the Detroit River, and Lake Erie. These bodies form the waterway which separates Michigan from Ontario, Canada. It is also the waterway that connects the upper lakes of Michigan, Superior and Huron to the lower lakes of Erie and Ontario, making it an important thoroughfare for national and international shipping and transportation on the Great Lakes.

Although Detroit has completed a $100 million convention center by the river and is in the process of building a $500 million complex of office high-rises and residential buildings on the bank, there has been little awareness of the problems or advantages of the city's river frontage. In the near future, city and county planning departments will undertake a riverfront study in cooperation with the state.

LOCAL GOVERNMENT

Detroit, with a population of 1,511,482, is the fifth largest city in the United States. Although it has been a major shipping, shipbuilding and automotive manufacturing center since the mid-nineteenth century, it lost nearly ten percent of its population to the suburban jurisdictions and Wayne County in the decade between 1960 and 1970. The city has experienced high racial tensions and has an unemployment rate of 12 percent, well over concurrent national figures.

Detroit is a home rule city governed by an elected mayor and nine council members. It has the usual municipal authorities, but is restricted in its powers of taxation by state statute. For instance, it may not institute a sales tax and it may not tax personal income of residents by more than two percent. To aggravate the situation, the city is at the limit of its taxing powers and is hard pressed to stay within its budget of $750 million.

Under a new city reorganization charter, effective July 1, 1974, a City Planning Department was created and given many powers previously delegated to the City Planning Commission. The Planning Commission will continue to consider new zoning and make recommendations to the City Council based on staff work by the Community and Economic Development Department and the Planning Department. The Zoning Board hears requests for rezoning. The city is in the process of updating its 1950 master plan.

Water and sewer services are provided to Detroit citizens by the Detroit Metropolitan Water and Sewage Board. Charter authorized, the board is composed of seven members appointed by the mayor and council. The board sets user fees for the 86 communities to which it sells water and for the 35 communities which use Metro sewage treatment facilities. It is exempt from Michigan state rate controls. Detroit is the largest of the 43 incorporated jurisdictions within Wayne County. Of the 2,670,000 county residents, 57 percent live within the city limits of Detroit.

Like other Michigan counties, Wayne is an administrative unit of state government with no home rule powers. It does not even act as a county-wide regional authority or clearinghouse for its 43 jurisdictions. Each of the localities is empowered to plan and zone its own land without any deference to county planning and land use concerns.

Wayne County is both governed by a 27-member Board of County Commissioners, elected from districts. Unwieldy in size, the Board's effectiveness is further hampered by the ill-defined mixture of both legislative and executive/administrative functions. The chairman of the board is elected by the board members and has no veto authority over legislative decisions. Assisting both the chairman and the board, is an administrator, bearing the title of director of administration, but the role does not approximate that of city manager of county administrator. Some administrative responsibilities are, by state statute, assigned to other elected or appointed county officials, such as the: Road Commissioner (appointed by the board); Planning Commissioner (appointed) and Drainage Commissioner (elected).

County planning and zoning is a classic case. Each of the 43 local jurisdictions in Wayne County may have a local planning commission. The Wayne County Planning Commission has 11 members, appointed by the Board of Commissioners. Responsible for reviewing plans and zoning changes for the unincorporated areas and townships (developed by the county planning staff), the commission has no veto power over local plans. Small cities sometimes volunteer their plans for review but there is no requirement to this effect. Based on the plans of the loca jurisdictions, the county planning department, draws up a county master plan, but it is not empowered to enforce it in any way.

Because the Wayne County Planning Director has good relations with the state Water Development Services Division, the county (in addition to the Southeastern Michigan Council of Governments) has been offered a $10,000 planning grant to develop local coastal zone goals.

It is the county that will take the lead in a $100,000 state-county-city study of the urbanized Wayne County riverfront. Originally conceived as a port study, it has been expanded into a riverfront development study, involving economic alternatives, physical objectives, and land use. The Planning Department of the City of Detroit is included in the five-member steering committee which will oversee the study.

REGIONAL AGENCIES AND SPECIAL DISTRICTS

Southeast Michigan Council of Governments (SEMCOG)

SEMCOG is the outgrowth of the state Transportation and Land Use Agency, set up to comply with requirements of the Federal Highway Act. In 1968, it broadened its scope and began doing regional planning authorized under the Regional Planning Commissions Act of 1945. In 1973, it was declared an official A-95 agency by the governor. SEMCOG represents seven counties: Wayne, Oakland, Macomb, Livingston, Washtenaw, St. Clair, and Monroe. It claims to represent 90 percent of the population of that area and includes on its General Assembly elected officials from 96 communities (one-third of Wayne County's 43 jurisdictions are members).

In SEMCOG's General Assembly, there is one vote for one government. But the vote in the Executive Committee is weighted, based on participation in the financial structure. The seven counties guarantee SEMCOG's budget and there is also financial support from federal and state sources.

SEMCOG offered to assist the state in their application for CZM planning grant, but their offer was not taken. The working relationship between the regional organization and the Department of Natural Resources is strained. DNR, in passing some of the CZM funds through to coastal regional planning agencies, offered $15,000 to SEMCOG and $10,000 to Wayne County. SEMCOG rejected the $15,000 on the grounds that they could not do any meaningful work with that sum.

Southeast Michigan Transportation Agency (SEMTA)

SEMTA is the region's public transportation operating authority. When the state put a two cent tax on gasoline, one-half cent was marked for SEMTA. It operates in six of the seven counties which also are members of SEMCOG, and is authorized to deal with any transportation except private cars. The governor appoints four of the governing board and SEMCOG appoints eight and reviews the budget. SEMCOG has also worked with SEMTA in developing the regional plan called Transportation 1990, integrating highway services with public transit.

Huron-Clinton Metropolitan Authority

Encompassing five of the seven SEMCOG counties enclosed by the Huron-Clinton Rivers is this state-authorized authority. Initated in the early 1930's, Huron-Clinton

has created a series of metropolitan parks. It has taxing authority in all five counties. Detroit pays over fifty percent of the authority's revenues and has recently complained that the parks are not within the access of the people of Detroit, and would like Clinton-Huron to take over the 10,000 acre park of Belle Isle in the middle of the Detroit River, operated by the Detroit Recreation Department. Detroit has the option to withhold their contribution to Huron-Clinton's budget quarterly but so far they have not used this prerogative.

STATE GOVERNMENT AND LEGISLATION

State Government

In June, 1974, the State of Michigan received a federal coastal zone planning grant totalling $534,447. Of that amount, the state provided $203,961. An umbrella environmental agency, the Department of Natural Resources was elected to be the grant recipient. The Water Development Services Division, one of ten operating divisions, will administer the federal coastal zone planning activities and coordinate efforts already authorized by the Shoreline Management and Protection Act. Within that division, its Shorelines Management and Water Resources Planning Section will handle the day-to-day activities. The Water Development Services Division is responsible to an appointed seven-member Water Resources Commission and one of two Deputy Directors within the Department of Natural Resources. Further, the Division responds to a seven-member Environmental and Natural Resources Commission which intervenes between the governor and the Director of the Department of Natural Resources.

Every aspect of land and water management is housed within the umbrella department. Nine other divisions: Lands, Geological Survey; Hydrological Survey; Water Development; Water Quality Control; Fish; Parks; Forest and Wildlife; make the coordination of the coastal zone planning activities fairly easy at the state agency level.

During the first year of the federally funded program, Michigan intends to collect existing information on land and water use and shoreland ownership. Additional data necessary to a management program and to implementing the statutory requirements of the Shoreland Protection and Management Act will also be sought. Plans are underway to design a retrieval system.

One-third of the federal grant (about $100,000) will be passed along to the ten regional planning agencies which have coastal zone borders. They will assist localities in the preparation of goals and objectives and the identification of statutes and regulations which pertain to coastal zone management.

Because of alleged long standing difficulties between the Michigan Department of Natural Resources and the Southeastern Michigan Council of Governments, the designated pass through of federal planning funds was reduced from $25,000 to $15,000. In lieu of the full

Wayne County Planning Commission received $10,000 to develop local coastal goals. During the second year, the organizational structure will be developed. It is expected that management functions will be distributed to state, regional and local government entities. A draft of the management program should be presented for review in mid-1975.

As a result of the spring floods of 1972 and 1973, 33 Michigan counties prepared flood plain plans to qualify for HUD flood insurance funds. In doing this, local governments dealt with some of the same problems of land use regulation presented in the Michigan Shorelands and Management Act and in the federal Coastal Zone Management Act. They had to adopt land use controls in flood plain areas, using such regulatory tools as building permits and subdivision regulations. The Department of Natural Resources was responsible for assuring adoption of standard criteria for the development of the local flood plain ordinances.

State Legislation

The Michigan Shorelands Protection and Management Act of 1970 addresses "the land, water and submerged lands in close proximity to the shoreline of a Great Lake or a connecting waterway." The Shorelands Protection and Management Act instructed the Water Resources Commission of the Department of Natural Resources to prepare a plan for the preservation and protection of Michigan's shorelands. The plan was reviewed by the public, accepted by the Natural Resources Commission and presented to the governor and legislature in 1973. It required identification of high risk erosion areas anda special environmental areas based on three basic principals: (1) only those activities and facilities requiring shoreland locations should be built on shoreland locations; (2) permissible developments should harmonize with limits of shoreland ecosystems; and (3) public policy should foster acquisition of shoreland environmental areas.

Local jurisdictions were notified of their authority to regulate or rezone these areas by April, 1974. (In Michigan, the smallest governmental unit – city, village, township – has the greatest zoning power. The county can zone only unincorporated or unplatted areas.) When the July, 1974 deadline came, several local ordinances had been submitted to the Water Resources Commission for approval, but the bulk of the 300 jurisdictions did not deal with the problem. The deadline has been extended until July, 1975.

Two other pieces of coastal legislation, a wetlands protection bill and a sand dunes protection bill, were introduced and defeated in the past session of the legislature. There is a likelihood that they will be introduced in the next session with a greater chance of passing.

CASE STUDY

PORTLAND/CUMBERLAND COUNTY/MAINE

SITE DESCRIPTION

Maine's coast is 4,052 miles long, stretching from Canada in the north to New Hampshire in the south. The coastline is highly irregular with many inlets and bays, the largest of which is Penobscot Bay. Three major rivers, the Androscogin, Kennebec and Penobscot form the major watersheds in the state and flow into the Atlantic Ocean.

Portland lies just to the north of Maine's Down East Region, fifty miles from the New Hampshire border. The city is built on the low-lying, gently sloping hills around Casco Bay. Its rocky coast turns into sandy beaches in the southwest. Portland is bordered on the north and west by the Presumpscot River and on the south by the Strandwater and Fore Rivers. The downtown areas of the city are undergoing renovation and reconstruction as part of an overall city beautification project. Occupying much of the city's coastal area, the port is a deepwater, ice filled, land-locked harbor three and a half miles from the Atlantic Ocean. Surrounding its county seat of Portland is Cumberland County. Slightly more than 80 percent of the county population of 192,528 reside in Portland, the remainder of which live in small municipalities or live throughout the rural unincorporated farmland of the county.

LOCAL GOVERNMENT

Portland is the largest city in Maine and has a population of 123,119, growing by only two percent between 1960 and 1970. The chief executive of the city is the manager, responsible to the mayor and council. As is the case in many council-manager cities, the mayor is one of the City Council members and has no extra authority. There are nine council members elected at large, six representing city districts and three represending all constituents.

Maine's home rule laws for municipalities provide for strong local planning offices and Portland is no exception. The Portland City Planning Office is under control of the city manager, reporting directly to him. A five-member Planning Board, appointed by the City Council, must review all plans developed by city staff. City and state staff have enjoyed a close working relationship in the development of plans and ordinances required by the Mandatory Shoreline Zoning and Subdivision Control Act. Zoning plans or changes must be initiated by the Planning Board through a public hearing. A second public hearing during a City Council meeting is then held. The council approves zoning plans. The city is responsible for comprehensive land use planning, zoning and water supply.

Maine counties have limited responsibilities. They neither perform land use planning or regulatory functions, and thereby do not play a role in Maine's coastal zone management program. Planning, zoning and regulation of unincorporated land areas is left to the Maine Land Use Regulation Commission. The Cumberland County Board of Commissioners administer social service and welfare programs benefitting the county residents who live in 26 municipalities including Portland. The three-man commission relies on the Portland Water District for the provision of water and sewer facilities to its residents.

REGIONAL GOVERNMENT AND SPECIAL DISTRICTS

Portland Water District

The Portland Water District supplies the City of Portland and eight surrounding municipalities with potable water. The nine-man Board of Trustees is elected by the municipalities. In the next year the Portland Water District will assume responsibility for sewage treatment for its members. It will provide the treatment plants and interceptors; the municipalities will provide collection services and billing. Sewage is currently dumped into Casco Bay with no treatment. All activities of the Water District are supported through local taxes.

Greater Portland Council of Governments (GPCOG)

The Greater Portland Council of Governments (GPCOG) was created by state statute in 1968. Its 17 member-municipalities are: Cape Elizabeth, Casco, Cumberland, Falmouth, Gorham, Gray, Naples, North Yarmouth, Portland, Scarborough, South Portland, Westbrook, Windham, Yarmouth, Freeport, Pownal, and Sebago as well as Cumberland County. State and federal (701 and DOT) funds in addition to membership fees provide the financial base of the Portland COG.

Under provisions of OMB Circular A-95, GPCOG functions as a Metropolitan Clearinghouse, reviewing local requests for federal funding. In addition, it provides an area-wide review of six types of applications to the Maine Department of Environmental Protection (Waste Dishcarge Licensing; Mining Reclamation; Site Location Review; Great Ponds Act; Wetlands Act; and Minimum Lot Size Review). Maine statutes require all state agencies to submit plans and programs to area-wide planning agencies for review; these review procedures parallel the A-95 procedures.

GPCOG is currently developing and constructing a baling and landfill solid waste disposal system to be operational in the fall of 1975. Ten member municipalities, of which Portland is one, are sharing the costs of construction.

In conjunction with three nonmember municipalities, GPCOG is applying for an EPA Section 208 Water Pollution Control grant for comprehensive waste treatment management. They will try to coordinate the 208 program with past water pollution control studies and the existing and future shoreline zoning and coastal zone management programs.

Port Authority

In 1972 during a governmental reorganization, the Maine Port Authority was split into two separate agencies. The Port Authority handles only fund raising for certain ports which request financial or technical assistance. Remaining is the Bureau of Waterways, now a part of the State Department of Transportation. The bureau is responsible for water-borne commerce in the entire state but has no legal authority anywhere in the state except for the 20 acre area owned by the bureau in Portland known as the Maine State Pier. It provides for the building of public wharves and the establishment of adequate port facilities throughout the state.

STATE GOVERNMENT AND LEGISLATION

State Government

Within the Office of the Governor is the Maine State Planning Office (SPO). The director is appointed by the governor and is directly responsible to him. The SPO reviews and comments on all local planning and development programs. It further acts as a clearinghouse for all state agency proposed plans, projects, developments and construction in the coastal zone. The state provides no funds and little technical assistance to municipalities to help in this planning.

In 1970 because the state legislature passed two significant laws affecting coastal wetlands, the State Planning Office was designated as a clearinghouse for coastal developments. To meet these responsibilities, a Coastal Planning Group was to be the chief unit to coordinate wetlands and land use legislation. The SPO plans to reorganize Maine's counties into eight planning and development districts, six of them coterminous with current regional planning organizations boundaries. The GPCOG would be coterminous with the proposed Cumberland District although it would not include all municipalities within Cumberland County. Coastal planning, now handled by municipalities and the SPO would become a responsibility of the new planning and development districts.

Legislation

In 1971, the Maine legislature passed three major laws affecting the coastal zone. The Mandatory Shoreland Zoning and Subdivision Control Act requires strict local zoning ordinances for all land within 250 feet of the normal high water mark of any pond, river or salt water body. Prior to July, 1973, municipalities were required to appoint an official body with responsibility for preparing the zoning ordinances. By July, 1974, they were to prepare a comprehensive plan for the municipality, to notify the SPO so that the plan might be approved and to adopt zoning ordinances to protect the shorelands and wildlife. In the fifty municipalities failing to meet the July, 1974 deadline, the SPO imposed a total moratorim on all development and construction to

be lifted when those municipalities adopted zoning ordinances. Portland's zoning ordinances were approved in July, 1974.

The Site Location Act of 1971 requires builders to obtain a building permit from the state as well as the municipality for two types of building construction: (1) Subdivisions, such as apratments, housing communities, educational institutions, and hospitals, of two or more buildings and clusters of buildings occupying a land of water area in excess of twenty acres; or (2) Single buildings with a ground area greater than 60,000 square feet.

Permits are granted only if the developer has the financial and technical ability to meet state air and water pollution control laws; has made adequate provision for traffic flow in the development area; has planned for protecting existing uses and scenic character of the natural environment; and has selected a location with soil type suitable for the development.

The Coastal Wetlands Act of 1971 prohibits any alteration of wetlands without a permit from the state.

In March, 1974, the Maine State Planning Office received a planning grant totalling $345,000 (of which the state share was $115,000). Funds will be used to inventory the state's coastal resources, to develop legislation and local controls and to prepare and implement a coordinated management program. The Coastal Planning Group (CPG) of the SPO is developing a resource atlas and a capability analysis of the coast. They will prepare twelve resource and land capability maps for each of the eleven coastal planning areas. The maps will cover such things as: bedrock geology, surficial geology, soils, slopes, watersheds, water classification, land use, facilities, wildlife, and marine resources.

For the purposes of developing a coastal management plan, the Maine State Planning Office (SPO) has defined the coastal regulatory area as a ten mile strip along all tidal waters on the coast. The regulatory area goes upriver as far as Augusta and Bangor. Inland, the width of the coastal area is one tow deep along all tidal waters and seaward, it extends 26 miles to the outermost island. The coastal planning area is larger than the regulatory area and encompasses all minor watersheds along the coast.

CASE STUDY

CLEARWATER-ST. PETERSBURG/PINELLAS COUNTY/FLORIDA

SITE DESCRIPTION

Pinellas County, Florida, comprises roughly half of the Tampa-St. Petersburg metropolitan area, the largest Standard Metropolitan Statistical Area on the west coast of Florida. The county, with a 522,329 population in 1970, is a large, densely populated peninsula bounded on the west by the Gulf of Mexico, on the east by Tampa Bay and Old Tampa Bay, and on the south by the concourse of the Bay and Gulf. A long series of barrier islands off the west coast of the mainland are heavily developed for tourist purposes.

The Pinellas County peninsula ranges from a width of approximately five to fifteen miles wide with a "high" central ridge running north and south approximately three miles wide. The ridge slopes off to the coastal area much of which is below the seven-foot line. Low-lying areas are subject to extensive flooding from tropical storms and hurricanes.

Use and ownership of the coastal area in Pinellas County has not been articulated but the Tampa Bay Regional Planning Council estimates that 65 percent of the coastal land in the entire Tampa Bay region is already developed and 93 percent of the coastline is in private ownership. Pinellas County is primarily developed for residential use. It has little industry, but does have some agricultural development, mostly citrus, in the northern part of the county.

St. Petersburg at the southern end of the peninsula, with a 1970 population of 216,232 is the third largest city in the state. It has been a major attraction for senior citizens. Clearwater (population 52,074) is somewhat more tourist-oriented and is the county seat. Pinellas County contains 24 municipalities, 19 of which are either on the gulf or bay-side. Twenty-six percent of the population lives outside of the boundaries of any municipality in the unincorporated area. Water-oriented recreation activities and the amenities associated with abundant water scapes make Pinellas County attractive for both year-round and second home dwellers as well as for tourists.

LOCAL GOVERNMENT

Typical of most other Florida counties, Pinellas County is unchartered and functions as a subdivision of state government. Governed by a five-member Board of Commissioners, it relies on a county administrator (authorized by a special act of the legislature in 1963) to carry out policy decisions. The cities of St. Petersburg and Clearwater also have council-manager forms. Both city and county officials are elected in non-partisan races and by virtue of several county-wide authorities, work cooperatively together.

Counties in Florida exercise governmental control for "municipal" purposes only in the unincorporated areas except through special acts of the legislature given them home-rule powers. Pinellas has gone this route to "metropolitanize" a number of functions.

Florida's elaborate permitting system generally provides that dredge and fill permits be issued by each level of government: city, county, state and federal. However, Pinellas County through a special act of the legislature established the Pinellas County Water and Navigation Control authority which has the sole authority within the County for establishing the bulkhead line and issuing the dredge and fill permits.

In addition to the county-wide Water and Navigation Authority, Pinellas County has an unusual county-wide planning operation. Through state enabling legislation, the Pinellas County Planning Council was created with county-wide jurisdiction. This council is the principal mechanism for cooperative efforts between city and county officials. Recently, a land use plan was prepared and when it had been approved by 75 percent of the 24 municipalities, became effective. Cities retain the power to plan and zone within their boundaries within the limits established by the comprehensive land use plan. Any variations from that plan must be approved by the council. The coastal zone is not a discrete component of the plan but obviously is an integral part.

Pinellas County also has a county-wide tree ordinance which has special relevance to the coastal zone because it prohibits alteration of the mangrove areas without approval of the county commission. An Aquatic Preserve Act governs all of the submerged lands in the county.

With the exception of these important authorities of Pinellas County as noted above, management of other activities impacting on the coastal zone is fragmented. Most of the coastal zone lies within the various municipalities. If the relatively sophisticated administrators of the larger cities do not think in terms of coastal management, it is unlikely that the officials of the smaller cities will do so. There is, however, some concern expressed by the administrators of St. Petersburg and Clearwater about lowering the density along the shoreline and both cities are preparing revisions of their zoning ordinances to accomplish this. Clearwater had even geen giving a bonus (in the growth-is-great era) for developers who would build along the shore.

REGIONAL GOVERNMENT AND SPECIAL DISTRICTS

Tampa Bay Regional Planning Council (TBRPC)

Mandated by the Comprehensive Planning Act of 1972, a four-county area around Tampa Bay was designated to serve as a state planning and development district. Prior to that time, regional planning councils were organized in some areas of Florida under a statute authorizing voluntary memberships among constituent counties.

The TBRPC includes Pinellas, Hillsborough, Pasco and Manatee Counties and eight cities, including St. Petersburg, Clearwater and Tampa. In addition to regional land use and transportation planning, RPO's in Florida have responsibility under the Land and Water Management Act to review developments of regional impact (DRI). They are the official A-95 agencies for their constituent local governments federal aid applications.

Financial support of TBRPC comes from the federal government (HUD and DOT), state government, and the 12 local governments (on a per capita basis) which are members. Both elected and appointed officials serve on the policy making board which approves regional comprehensive plans.

Regional planning councils have no power of implementation in Florida other than their power of appeal to the state cabinet on the DRI process. Water management district boards, on the other hand, not only have the responsibility of planning for the use and preservation of the water supply but they regulate the use of water by the local governments within the district.

Southwest Florida Water Management District (SWFWMD)

Organized in 1961 as a flood control district, the 15-county area is now one of the five state water management districts created by the Florida Water Management Act of 1972. It is authorized to exercise complete control over both surface and ground water and does long range planning to assure that the state's water resources will be utilized wisely.

The geographic boundaries of SWFWMD include all or parts of six planning districts. Although the interrelationship between land and water planning is fairly obvious, the precise relationship in the field of planning between planning councils and water management districts has not been clearly identified and remains a point of some controversy in Florida.

Not only is the relationship between the regional planning councils and the water management districts an unresolved matter, but the role of the RPO's with respect to both the Division of State Planning and the Coastal Coordinating Council is a matter of current concern.

Port Authority

Pinellas County does not have its own Port Authority although there is special legislation providing for one. The Tampa Bay Port Authority controls the deep water port on the mainland side of the bay. Pinellas County is not represented by membership in this agency.

STATE GOVERNMENT AND LEGISLATION

State Government

In spite of an estimated 11,000 miles of coastland comprising some of the most beautiful and fragile aquatic systems in the country, Florida does not have legislation requiring a coastal zone plan. Nor is there at this time a state land use plan.

In 1970, the Florida legislature created the Coastal Coordinating Council (CCC) to "develop a comprehensive state plan for the protection, development, and zoning of the coastal zone . . . " Located within the state Department of Natural Resources, the council is chaired by the department director. The council includes the Directors of the Department of Pollution Control, Department of Administration and the Internal Improvement Fund Board (the Florida cabinet). It employs a small staff headed by a director who reports to the Director of the Department of Natural Resources.

The Coastal Coordinating Council has developed a rough inventory of the coastal zone which, for planning purposes, is comprised of the census tracts bordering the coast. Otherwise, the coastal zone is defined as seaward from the shore three miles into the Atlantic Ocean and nine miles into the gulf; and inland to the extent of the salt water influence.

With a federal grant of $450,000 from the Office of Coastal Zone Management matched by a state contribution of $236,000, the Coastal Coordinating Council has been designated to prepare Florida's Coastal Zone Plan. State administration of Florida's coastal zone is fragmented. Major responsibility is divided between three agencies: the Trustees of the Internal Improvement Board which manages all state-owned lands including submerged lands along the coasts and which sets bulkhead lines and issues permits for coastal development; the Department of Natural Resources which establishes setback lines for each county and which also issues permits for coastal construction; and the Department of Pollution Control which is responsible for water quality and which must issue permits for the discharge of effluents into canals and coastal waterways. Other agencies of state government play lesser roles impacting on the coastal areas.

In its application for federal funds, the CCC indicated its intention to expand its staff for the purpose of developing the Coastal Zone plan. The CCC proposed to place a staff member in the office of each of the coastal regional planning councils, a proposal which drew strong opposition from the directors of the Tampa Bay RPC and the South Florida RPC. It was the position of the directors that the regional planning councils ought to do the coastal zone management plan, not the state agency. A compromise is being worked out which provided that the CCC would contract with the RPC under strict controls by the state. This proposal will probably not meet with much enthusiasm among the local government officials in Pinellas County who have a low opinion of the TBRPC. They cite the lack of understanding by the RPF staff of the problems of local government and of the implementation of the planning process along with its lack of depth of expertise.

The Council has provided limited technical assistance to local government. It does not intend to pass through any of the federal coastal management grant to local governments. In addition to the *Florida Coastal Zone Management Atlas*, the council has prepared detailed coastal zone management plans for Monroe County (the Florida Keys) and for the City of Clearwater. As an outgrowth of the study of the Tampa Bay area prepared by the Tampa Bay Regional Planning Council on contract with the Coastal Coordinating Council, the CCC has prepared for the City of Clearwater a Coastal Zone Management Plan and a handbook to guide the city officials on implementation of the plan. The plan and handbook are intended to be both a prototype for the preparation of plans in other areas and an instrument of practical use to Clearwater. City officials are generally pleased with the plan and are in the process of implementing it.

State Legislation

The principal state legislation specifically relating to the coastal zone is the Beach and Shore Preservation Act enacted originally in 1965 and subsequently amended. This act regulates construction in coastal areas and provides for state participation in beach restoration projects.

Other significant legislation with important implications to the coastal zone includes the Comprehensive Planning Act of 1972, the Water Management Act of 1972 and the Comprehensive Land and Water Management Act of 1972. A constitutionally authorized recreational bond issue has provided funds for the purchase of two off-shore islands in Pinellas County for public use.

The Land and Water Management Act structures major responsibilities for the regional planning councils. Included among these is the responsibility for reviewing "developments of regional impact" (DRI's). Such developments are defined as those which affect more than one county and include developments such as power plants, recreational facilities, and port facilities which would have direct impact on the coastal zone. Also of significance in this act is provision for the designation of "areas of critical state concern." The law provides some state responsibility for regulation of development in areas so designated. Included in the definition of "development" is "alteration of shore or bank, of a seacoast, river, stream, lake, pond, or canal, including any coastal construction." It is likely that the first coastal area so designated will be the Florida Keys, based in part on the study prepared by the Coastal Coordination Council.

Of special concern in Florida is the establishment of the bulkhead line and the issuance of dredge and fill permits. With so much of the coastal area below flood criteria, it is necessary for developers to raise the level of the land in order to begin construction which can only be located landward of the bulkhead line. Coastal development is generally accomplished by dredging lakes or canals to provide the fill as well as for navigation purposes. Much coastal development is on filled land. Not only does this process bear on developmetn activities in the coastal zone, but the construction of canals leading into coastal waters directly affects the fresh water table and the extent of salt water intrusion into coastal wells.

CASE STUDY

SEATTLE/KING COUNTY/WASHINGTON

SITE DESCRIPTION

King County is located in the upper northwest corner of the State of Washington. Bordered on the west by Puget Sound and the east by Lake Washington, this area is directly connected to the Pacific Ocean through the Strait of Juan de Fuca. The twenty-three hundred square miles of land in King County rises from sea level at Puget Sound to the peaks of the Cascade Mountain range. The county is bisected by three river basins (Cedar, Greene, and Snoqualmie) and contains a number of low valleys subject to continual flooding and extensive marshland. Although the land is suitable to forming in the non-hilly areas, it is beginning to show the signs of creeping industrialization. The most densely populated part of King County is contained within the City of Seattle which accounts for approximately 48% (530,890) of the county's population (1,156,633). The Seattle-Everett Standard Metropolitan Statistical Area enjoyed an increase in population of 28.7% in the period between 1960 and 1970.

Approximately 90% of the King County sixty-six mile coast (including Vashou and Mauri Island) is privately owned and used exclusively for single family residences. The remaining 10% is divided equally between corporate ownership, primarily the Burlington Northern Railroad, and public ownership, either state or local government in use as waterfront parks. Seattle's coastal zone is seventy-eight miles in length and includes all the fresh and salt water frontage of Puget Sound and Elliot Bay. The major land owners are the Boeing Company, the Port Authority, the city and various federal and state agencies, the most significant being the United States Navy.

LOCAL GOVERNMENT

King County is the only home-rule county in the State of Washington. Its charter provides for nine councilmen elected from districts and an elected county executive similar to the mayor-council form. Under the King County charter there is provision for a chief administrative officer (manager). However, in 1972 a reorganization of the county executive's staff, the traditional manager responsibilities were vested in a new position, Director of the Department of Budget and Program Planning. Shoreline planning takes place in this department, one of six directly accountable to the county executive.

In 1960, under legislative ordinance, an Environmental Development Commission was created to be an advisory body to the King County Departments of Planning and the County Council. One hundred and thirty members are appointed by the elected

executive and the council to sit as a review body on all planning decisions and zoning amendments. All land use plans as well as zoning amendments must be adopted by the County Council, and once adopted, are implemented by the Department of Community and Environmental Development.

The City of Seattle is governed by a mayor and nine-member council. The mayor has several executive assistants and a director of the new Office of Policy Planning to assist him in management decisions. Council members are elected by districts within the city while the mayor is elected at large. One of the many department heads reporting directly to the mayor is the Director of the Department of Community Development. The Office of Environmental Management which has the responsibility for shoreline or coastal zone planning is a part of this department.

Although the City of Seattle has no planning advisory body, plans developed by the Department of Community Development are submitted directly to the City Council for their consideration. Amendments and variances to zoning must be referred first to a Board of Adjustment and then to the City Council for a decision. The decisions are implemented by the City Building Department, which is also responsible for permits and development controls.

REGIONAL GOVERNMENT

Municipalities of Metro Seattle (METRO)

METRO was created out of public concern for the poor quality of water in Lake Washington and conditions near some of the Puget Sound beaches, caused by dumping of raw sewage. In 1958, citizen concern led to voter approval of the establishment of a metropolitan municipal corporation with the responsibilities of planning, constructing, and operating sewerage facilities for the metropolitan area of Seattle, King County and the municipalities therein. Within the enabling legislation which created METRO were also the authority to operate five other functions: public transportation; comprehensive planning; park administration; water supply; and garbage disposal.

Policy-making is the responsibility of the METRO Council, a thirty-six member body. Membership is made up of the mayor and City Council of Seattle, the county executive and the King County Council, seven elected officials from smaller cities, and six representatives of unincorporated areas in the county (who are appointed by the King County Council). Decisions are made on approximately a one man/one vote basis.

METRO's sewerage role can be described as that of a wholesaler. The agency does not operate local sewer systems; instead, it connects to them, transports their sewage, treats it and discharges it into receiving waters. City and county sewer districts are the principal users of METRO and pay for the system through a water rate charge. Transit

operations are supported through fare box receipts, a portion of the motor vehicle excise tax, a local three mill sales tax and federal mass transit grants.

A water quality monitoring system was also established by METRO and 600 monitoring stations routinely check all waters and marine life to ascertain the effects of the dumping of treated sewage into receiving waters. METRO has also undertaken a river basin planning program known as RIBCO. Five environmental studies which deal directly with water and waste management in the two major drainage basins in King County will be completed by the end of this year. Data derived from the five studies will be stored in computers so that elected officials can use it to help evaluate the environmental consequences of various land and water use decisions.

Because of the expertise within the METRO agency through the water quality monitoring and river basin projects, it is not surprising that the governor designated METRO as the EPA Section 208 grant recipient. However, this decision has created a contest of wills between the agency and the Washington Department of Ecology.

One further authority, which METRO has not yet exercised, is the development of a comprehensive plan. Enabling legislation states: "Upon the affirmative vote of two-thirds of the members, such council may make planning, engineering, legal, financial and feasibility studies preliminary to or infinite to the preparation of a recommended comprehensive plan for any metropolitan function . . . "

Puget Sound Governmental Conference (PSGC)

In 1957, commissioners of King, Kitsap, Pierce, and Snohomish Counties formally organized a previously informal association of their planning directors to include elected public officials. Since that time, a series of federal and state laws have expanded the original scope of services of the Puget Sound Governmental Conference – planning on a regional basis. In 1959, the state legislature gave regional planning bodies planning authority similar to that exercised by county governments and in 1965, authorized councils of governments to contract for studies and to receive federal grants.

The 1965 legislation authorizes the establishment of a regional agency, or conference, "for the purpose of setting regional and governmental problems of mutual interest and concern including, but not limited to, facilities studies on highways, transit, airports, ports or harbor developments, water supply and distribution, codes and ordinances, governmental finances, flood control, air and water pollution, recommendations of sites for schools and educational institutions, hospital and health facilities, parks and recreations, public buildings, land use and drainage; and to formulate recommendations for review and action by the member counties and/or cities legislative bodies."

One of the conference's major planning activities has been the development of a regional comprehensive plan. Since no overall framework for orderly development of

the central Puget Sound region existed previously, the conference adopted an Interim Regional Development Plan in August of 1971. The plan sets policies and guidelines for development decisions and establishes the eligibility of local cities and counties for federal assistance grants. As it preceded the passage of the Coastal Zone Management Act of 1972, there is no coastal management component within it. A current updating of the Interim Regional Development Plan will direct itself to the master plans developed by cities and counties under the Shoreline Management Act as well as the Department of Ecology's interest in using federal Coastal Zone Management Act monies in multi-jurisdictional arrangements.

Additional functions have been given to the Puget Sound Governmental Conference by the federal government. It is the official A-95 review agency for all grant applications filed by its 24 city and four county member jurisdictions. The conference also reviews environmental impact statements prepared in accordance with the federal National Environmental Policy Act and related state legislation.

Membership in the Puget Sound Governmental Conference is a combination of elected and appointed officials from the four counties of Snohomish, King, Pierce, and Kitsap, the 24 cities (including Seattle, Takoma, Bremerton, Everett) and several Indian tribes. A 19-member executive board is responsible for policy decisions. Weighted voting, based on population does exist; however, every member has at least one vote.

The financial basis of Puget Sound Governmental Conference operations is based on the following several state and local funds: HUD 701; OEP Disaster Planning; FAA; HEW Human Resources Planning; Washington Department of Highways Transportation Planning (supplied through state gasoline tax); and the membership fee of all local governments (eight cents per capita based on the 1970 population).

Port Authority

The Seattle Port Authority is an autonomous agency with county-wide jurisdiction. Created in 1911 by state enabling legislation, it is governed by five commissioners, elected by the citizens of King County.

Although the Port Authority has no regulatory powers, its broad areas of responsibility make it a significant agency. Charged with facilitating water-borne commerce, it owns, operates and constructs port terminal facilities, a marina and the Seattle-Tacoma Airport. It may also operate toll bridges, ferries and a railway, although these functions have not been exercised. The Port Authority acts as an agent for the state in securing new freshwater harbor leases and by encouraging industrial development through trade representatives in New York, Chicago, Hong Kong and Tokyo.

Relying on containerized shipping for grain and oil exports, the Port Authority's major imports are rattan furniture, foreign automobiles, toys, major appliances, such as

televisions, and heavy equipment. As the Alaska pipeline becomes a reality, the Seattle Port will become a significant oil transport terminal.

The coastline of the Seattle harbor measures 135 miles. Nearly 40 miles is in industrail, commercial and public use (Port Authority, ship yards, Boeing aircraft, NOAA, United States Navy) while the remainder is residential and recreational.

Within the Port district, both King County and Seattle are responsible for zoning and enforcement of the land. All new developments are subject to county building permits (authorized by the Shoreline Management Act) and Environmental Impact Statements. With the sanction of Port officials, Seattle has set up special review districts composed of citizens who want input on new port developments. Police and fire services are provided by special districts of city and county governments.

Financial support of the Port Authority is obtained through five basic sources: user charges; leases (land and facilities); bonding authority (commissioners may float bonds up to a certain amount. If they wish to exceed that level, a public referendum is necessary); property tax (1½ mills per person); and federal grants (EDA, FAA and Corps). A study of the Devomish River is being conducted jointly by Seattle, King County and the Port Authority, funded by EDA.

As a member of the Washing Public Ports Association, the Seattle Port Authority was invited to participate in the development of the Shoreline Management Act.

STATE GOVERNMENT AND LEGISLATION

State Government

The Washington State Department of Ecology was created in 1970 by the state legislature as an efficiency and modernization measure. Within the new department are the former state Water Pollution Control Commission, the Air Quality Commission, Department of Natural Resources, and the Solid Waste program formerly administered by the Department of Health, as well as administrative responsibility for the Shoreline Management Act. The Department of Ecology is organized into two branches and each branch into two offices. Under the Office of Planning and Program Development is the Shoreline Management Program Administration. Although the state Department of Ecology is charged with the administration of both the state and federal programs, the Department of Natural Resources manages publicly owned tide, shore and aquatic lands and the Parks and Recreation Commission is responsible for all seashore conservation.

State Legislation

The Shoreline Management Act of 1972 was an idea advanced by the Washington Environmental Council which is the principal citizen's environmental lobby in the state.

The concepts now contained in the legislation were presented as an initiative to the legislature which amended the original proposal and developed the current law dividing authority between state and local governments. Basically the legislation establishes a cooperative program between the 220 city and 18 county governments within the coastal zone and the Department of Ecology to develop guidelines for: (1) shoreline "master programs" (comprehensive land use); and (2) criteria to use in evaluating permits for coastal development. Local governments have the responsibility for inventorying their coastal land, preparing the master program and for administering the regulatory program (permits). Local inventories identified the use of the land, its natural characteristics and the existing ownership. "Environments" were further developed for rural, conservation, urban and industrial classifications which are used for permitting purposes.

The Shoreline Management Act is the very first example of direct state and local cooperation in Washington. In fiscal year 1972, the legislature appropriated $500,000 for administration of the new law and set aside $100,000 to be used as grants to local governments. Matching grants (50/50) were distributed to local governments on the basis of population and miles of shoreline. The state later determined that county governments would be the primary agents for developing master plans. When cities within the county chose to develop their own plan, state funds were shared on the same criteria of population and shoreline length with the city.

King County received three grants from the Department of Ecology for: inventory ($9,000); Phase I: policy development for unincorporated and incorporated areas ($6,500); and Phase II: definition of "environments" ($10,400). Under the formula, the City of Seattle would have been eligible for only $200 and thereby, an agreement was made for King County to receive the total grant amount and to provide the planning for all the coastal communities within the county, including Seattle.

In May of 1974, the Washington State Department of Ecology received a planning grant of $583,230 from the Office of Coastal Zone Management. The state share of $194,410 represented one-third of the total grant. Of these federal monies, $70,000 is earmarked to be passed through to local governments to be matched on a 50 state/ 50 local basis. King County may receive $9,000 to continue the development of its master plan. In addition to the small grants available under the Shoreline Management Act and the potential use of Coastal Zone Management Act monies, local governments in Washington have also been able to utilize HUD Section 701 funds for shoreline development plans. For the last three years all 701 funds passed through from the state to local governments have been earmarked in this manner.

In addition to the financial assistance mentioned above, some technical assistance was provided to local officials by the Interdisciplinary Advisory Committee funded jointly by the Department of Ecology and the Sea Grant program at the University of Washington. This committee was a voluntary body of coastal zone academicians and technical experts charged with the responsibility of assisting local governments in negotiating major permits

and in developing their local master plan. Although local governments were advised of the assistance available through the Interdisciplinary Advisory Committee, most of the questions raised needed immediate answers. Unable to comply in a timely fashion, the committee was abolished.

In response to requests from local governments, the Department of Ecology provided three day-long workshops for county planners which were successful enough that they are ongoing. In its most recent catalog the University of Washington is offering an introductory course on the administration of the Shoreline Management Act and the Sea Grant program staff are making efforts to tailor their research to the needs of local officials.

In spite of the assistance available, only 50 percent of Washington's local governments have completed their master plans which were originally due December 31, 1973 under threat of state intervention. Rural counties have risen to the challenge of master plan development by hiring, for the first time, planning directors. While the deadline was extended to June 20, 1974, many local officials expressed annoyance concerning the extraordinarily detailed requirements developed by the Department of Ecology and the precious little grant monies available from the state government.

Feeling that the rural coastal counties were completely unequipped to develop master plans, the Department of Ecology in conjunction with the Department of Community Development provided a grant to the Washington State Association of Counties. A planner was hired to help with shoreline coordination and master plan assistance in these communities through the Washington State Association of County and Regional Planning Directors. Also, because of the intense interest of homeowners located in the Lake Washington area, the Department of Ecology granted $10,000 to the Lake Washington Regional Citizens Advisory Committee. With that money, they were able to develop the Lake Washington Regional Shoreline Goals and Policies Statement (dated October 31, 1973). Various citizens from King County and Seattle as well as the other lake communities participated in public hearings and delegated to local government experts the task of creating a goals statement. It is intended that this statement be incorporated into the state shoreline plan.

APPENDIX B
A SELECTED COASTAL BIBLIOGRAPHY

A SELECTED COASTAL BIBLIOGRAPHY

This listing of books, articles and studies is directed towards filling the information needs of urban planners and managers working in or near the coastal zone. It is not a complete listing of everything available but a selected compilation of pertinent material.

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APPENDIX C

COASTAL ZONE TERMINOLOGY

COASTAL ZONE TERMINOLOGY

The following selection of coastal and related terms has been compiled to facilitate communication between urban planners and coastal zone managers and to help urban planners who are working as coastal zone managers.

ABATEMENT:
The method of reducing the concentration of pollution; also the use of such a method.

ACCRETION:
The process of growth or enlargement. The increase of land by the gradual action of natural forces such as wind and water.

ADVERSE EFFECT:
An adverse reaction of an ecosystem to a disturbance.

AGITATION DREDGING:
A method of dredging that involves overboard discharge of spoil with a high induced rate of dispersal.

ALGAL BLOOM:
A proliferation of living algae on the surface of lakes, streams or ponds. Algal blooms are stimulated by phosphate enrichment.

AQUACULTURE:
The cultivation or farming of the natural products of water, such as fish, shellfish, kelp and seaweed. The process is used extensively off the coast of Japan and is now spreading to areas in the U.S.

AQUIFER:

A ground water reservoir or conduit in a permeable subsurface layer open at one end to surface waters and sloping downward. Also, an underground bed or stratum of earth, gravel or porous stone that contains water.

AREAS OF ENVIRONMENTAL CONCERN:

Areas which, because of their ecologic and geographic significance, require special management considerations.

ARTESIAN WELL:

A freeflowing well drilled into an aquifer with the well head below the highest point of water. A well made by boring into the earth until reaching water with a great enough internal pressure that it flows upward like a fountain.

ATOLL:

A circular coral reef enclosing a lagoon. Atolls usually grow on the rim of a submerged volcanic crater. They are most abundant in the Pacific Ocean.

BACKWASH:

The seaward-flowing surface water resulting from a wave hitting the shore.

BAR:

An offshore deposit of silt, sand or gravel, submerged at least at high tide. A bar is often elongated and parallel to the shore but can occur in many shapes. Bars are most often found at the mouths of rivers and estuaries in tidal waters.

BARRIER ISLAND:

Elongated seafront islands formed by the action of the sea usually parallel to the sea coast. A barrier island is often called a *barrier beach.*

BARRIER REEF:

Coral reefs separated from the shore by a lagoon. Such reefs are usually broken by passes, allowing access to the lagoon. See *atoll, pass.*

BAY:

A large body of water semi-enclosed by land.

BAYOU:

A minor, sluggish waterway or estuarial creek, with low salinity and a fresh/salt water mix, generally tidal or with a slow current. Its course generally runs through lowlands or swamps, connecting with other bodies of water. Bayous are sometimes known as sloughs.

BEACH:

The zone of unconsolidated material (usually sand, gravel, or cobble) that extends landward from the low water line to the place where there is marked change in material or form. The seaward limit of the beach – unless otherwise specified – is the mean low water line. A beach includes foreshore and backshore.

BENTHIC REGION:

The bottom of a body of water which supports the plant and animal life whose habitat is at the bottom of a sea, lake or river (benthos).

BIOCHEMICAL OXYGEN DEMAND (BOD):

The measure of the amount of oxygen consumed per unit time in the biological processes which will use up large amounts of dissolved oxygen. Large amounts of organic waste initiate biological activity which breaks down organic matter in water.

BIODEGRADABLE:

A substance which decomposes quickly as a result of the action of microorganisms.

BLOWOUT:

A gap in a sand dune caused by wind blowing the sand away after the removal of anchoring vegetation.

BRACKISH WATER:

A mixture of fresh water and sea water with a salinity between the two.

BREAKER:

A wave whose top is advancing shoreward faster than its bottom. The top of a breaker is a whitecap.

BREAKWATER:
A structure built perpendicular to the prevailing wind direction used to stop or deter the effects of wave action in a harbor.

BOG:
Wet, spongy land usually poorly drained, highly acidic and rich in plant life.

BUFFER ZONE:
A strip established to separate and protect one type of land use from another, usually of a modified protected nature; for example, as a screen to objectionable noise, smoke, and visual aspects of an industrial zone adjacent to a residential area. Also, a limited use area between a developed area and a protected area.

BULKHEAD:
A structure separating land and water areas, primarily designed to resist earth pressure. A bulkhead built along a waterfront to resist encroachments of the sea is called a seawall. The bulkhead line marks the area beyond which a bulkhead cannot be constructed.

CARRYING CAPACITY (ECOLOGY):
The limit to the amount of life, in numbers or mass, that can be supported by any given habitat without artificial support. Also, used to express reasonable limits of human use of a resource.

CAUSEWAY:
A raised road crossing a marsh or open water. Causeways are usually low-lying bridges

CESSPOOL:
An old device for disposing of sewage from individual dwelling units, utilizing a perforated, buried tank that allows the effluent to seep into the surrounding soil but retains most of the solids. Cesspools are considered unacceptable disposal devices under modern public health standards.

CHANNELIZATION:

The straightening and deepening of streams to permit water to move faster, to reduce flooding or to drain marshy acreage for farming.

CHEMICAL OXYGEN DEMAND (COD):

A measure of the amount of oxygen required to oxidize organic and some inorganic compounds in water.

CIRCULATION:

The pattern of movement, both horizontal and vertical, of water in a region of containment as caused by tides, currents and winds.

CITY PLANNING; URBAN PLANNING:

The guidance and shaping of the development, growth, arrangement, and change of urban environments with the aim of harmonizing them with the social, aesthetic, cultural, political, and economic requirements of life.

CLOSED CYCLE:

A self-contained power plant steam-condenser cooling system that requires water input only to replace evaporative losses and to dilute residues.

COAST:

A strip of land of indefinite width extending from the seashore inland to the first major change in terrain features or to a climatic discontinuation. It may be several miles wide. The *coast line* is the line forming the boundary between the water and the land. The *coastal area* is the land and sea areas bordering the coast line.

There are five major classes of coasts. These are:

Compound coast: A coast exhibiting characteristics of two or more types of coasts.

Emergent coast: A regular coast with few good harbors created by a rise in the earth's crust occurring near the border of a continent.

Fault coast: A coast with little beach and few harbors found where mountains rise steeply very near the shoreline. The offshore area is usually studded with boulders and cobble, making navigation hazardous.

Neutral coast: An area with no relative change between the sea level and the coast. Subtypes of neutral coasts are: alluvial fans, deltas, volcanic coasts and coral reef coasts.

Submergent coast: A highly irregular coast with many estuaries and good harbors created by the sinking of the earth's crust near the border of a continent. Ria coasts and fiord coasts are subtypes of submergent coasts.

COASTAL FLOODPLAIN:

The area shorelands extending inland from the normal yearly maximum high tide or high water level to the highest expected high tide or higher water level in a given period of time (i.e., 5, 50, 100 years). See *floodplain*.

COASTAL STATE:

A state of the United States, in, or bordering on, the Atlantic, Pacific, or Arctic Oceans, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. The term may also include Puerto Rico, the Virgin Islands, Guam, and American Samoa. There are 30 coastal states and 4 territories.

COASTAL UPWELLING:

A process by which the deeper and colder waters rise to the surface along the coast. The water moves shoreward along a subsurface layer of a water basin into the shore zone to replace the surface water moving offshore. The reaction is usually caused by wind forcing surface waters offshore. This process often brings nutrients to the surface and creates good fishing and a cool, humid climate.

COASTAL WATERS:

(1) In the Great Lakes area, the waters within the territorial jurisdiction of the United States consisting of the Great Lakes, their connecting waters, harbors, roadsteads, bays, shallows, and marshes.

(2) In other areas, those waters, adjacent to the shorelines, which contain a measurable quantity or percentage of sea water, including, but not limited to, sounds, bays, lagoons, bayous, ponds, and estuaries.

COASTAL WATERSHED:

A drainage area that drains directly into coastal waters. (Does not include drainage basins that drain wholly into fresh water channels tributary to coastal waters.)

COASTAL ZONE:

The coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters. Excluded from the coastal zone are lands the use of which is, by law, subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents.

COLIFORM INDEX:

An index of the purity of water based on a count of its coliform bacteria.

COMPREHENSIVE PLAN:

An official document adopted by a local government setting forth its general policies regarding the long-term physical development of a city or other area. The plan should be broad enough to include all aspects of a development or redevelopment program as distinguished from sporadic, isolated, or piecemeal planning. It can include such elements as: a land use plan, a traffic circulation plan; sanitary sewer, drainage and potable water guidelines; conservation; recreation and open space; housing plans; coastal zone protection guidelines.

CONSERVATION:

The protection of the resources (minerals, water, forests, land fisheries, wildlife, etc.) of man's environment against depletion or waste and the safeguarding of its beauty. Also, an urban-renewal strategy that emphasizes the protection of an existing, viable neighborhood against the encroachment of blight.

CONTINENTAL SHELF:

The zone bordering a continent extending from the line of permanent immersion to the depth (usually about 200 meters or 600 feet) where there is a marked or rather steep descent toward the great depths.

CORAL REEF:

A calcareous structure built by large colonies of coral and shell forming organisms. Corals forming large reefs are found in warm, shallow waters. A *coral head* is a colony of coral which may form part of a reef.

CURRENT, COASTAL:

Offshore circulation which is affected by the coast and shallowness of the bottom. One of the offshore currents flowing generally parallel to the shore line with a relatively uniform velocity (as compared to the ***littoral currents***). They are not related generically to waves and resulting surf but may be composed of currents related to distribution of mass in ocean waters (or local eddies), wind-driven currents and/or tidal currents.

CUT:

A channel dredged or excavated for navigational purposes.

DELTA:

A deposit of silt, sand and/or gravel found at the mouth of a stream or river.

DEMOGRAPHIC:

Statistics of human populations especially with reference to size, density, distribution and vital statistics.

DESALINIZATION:

Salt removal from sea or brackish water to produce potable water.

DISSOLVED OXYGEN (DO):

The amount of oxygen dissolved in a body of water. A minimum of 6ppm oxygen is needed in the water for an optimum ecosystem function.

DOCK (SLIP):

(1) The space between two piers. A pier is sometimes erroneously called a dock. (2) A basin or enclosure for reception of vessels, and provided with means for controlling the water level. A wet dock is one in which water can be maintained at any level by closing a gate when the water is at the desired level. A dry dock is a dock providing support for a vessel, and means for removing the water so that the bottom of the vessel can be exposed. See *jetty, pier, wharf.*

DRAINAGEWAY:

A pathway for watershed drainage characterized by wet soil vegetation, often intermittent in flow.

DRAINAGE BASIN:

The entire area of shorelands drained by a watercourse in such a way that all flow originating in the area is discharged through a single outlet.

DREDGING:

A method of scraping and/or removing mud and other solids to deepen or modify stream beds, swamps or coastal waters. The resulting mud is often deposited in marshes in a process called filling.

DUMP:

A land site where solid waste is disposed of in a manner that does not protect the environment.

DUNE:

A hill or ridge of sand piled up by the action of wind and waves. The steep side of a dune is on the leeward side.

DUNE STABILIZATION:

The growth of heavier vegetation such as perennial shrubs, trees, and vines on sand dunes thus impeding their movement by waves or wind.

EASEMENT:

An acquired right of use, interest, or privilege (short of ownership) in lands owned by another, such as an easement of light, of building support, or of right-of-way. They may be permanent or limited in time dependent upon the easement agreement. Conservation easements are acquired by a public body to restrict the development of land so that open space and natural resources may be protected. Scenic easements involve the granting of the right of land use from an individual to a public body so that the aesthetic appearance of the land may be guaranteed. Flooding easements, water-access easements, hiking- and riding-trail easements, and easements not to build are among the common forms.

ECOLOGY:

The relations of an organism to its environment. A study of the distribution of organisms in time and space and of the flux of mass and energy through the environment.

EDDY:
A surface or subsurface water current moving contrary to the direction of the main current, especially in a circular motion.

EMBAYMENT:
A relatively small and shallow estuary with rather restricted flushing (differs from lagoon by having significant freshwater inflow).

EMINENT DOMAIN:
The power of a government to acquire lands for public purposes through payment to the owner.

ENVIRONMENT:
The sum of all external conditions and influences affecting the life, development and, ultimately, the survival of an organism.

ENVIRONMENTAL IMPACT STATEMENT (EIS):
A document prepared by a Federal agency, and more recently by local governments, on the environmental impact of their proposals for major actions significantly affecting the quality of the human environment. Environmental impact statements are used as tools for decision making and are required by the National Environmental Policy Act. In some cases, it is known as an Environmental Assessment Statement.

EROSION:
The wearing away or external degeneration and removal of surface materials by a moving stream of fluid such as running water, or waves, wind, ice (glaciers), or other natural occurrences.

ESTUARINE SANCTUARY:
A research area which may include any part or all of an estuary, adjoining transitional areas, and adjacent uplands, constituting, to the extent feasible, a natural unit, set aside to provide scientists and students the opportunity to examine over a period of time the ecological relationships within the area.

ESTUARY:
That portion of a stream influenced by the tide of the body of water into which it flows. A bay, as the mouth of a river, where the tide meets the river current.

For the purposes of the Coastal Zone Management Act of 1972 (P.L. 92-583), an estuary may be defined as:

That part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage. The term includes estuary-type areas of the Great Lakes. May include confined areas of seasonally restricted fresh water drainage.

FETCH:

A wide expanse of open water. The continuous area of water over which the wind blows in essentially a constant direction.

FILLING:

The process of depositing dirt, sand, mud or solid waste on a parcel of land to raise its elevation. Artificial elevation of land by deposit of soil or sediment.

FLOODPLAIN:

(1) The whole area flooded and covered with sedimentary deposits when a large river annually floods portions of level land near its mouth.

(2) A strip of relatively smooth land bordering a stream, built of sediment carried by the stream and dropped in the slack water beyond the influence of the swiftest current.

(3) That portion of a river valley, adjacent to the river channel, which is built of sediments during the present regimen of the stream and which is covered with water when the river overflows its banks at flood stages.

FLUSHING RATE:

The rate at which the water of an estuary is replaced (usually expressed as the time for one complete replacement).

FRESH WATER:

Any water having virtually no salt content.

GREEN BELT:

A wide band of countryside surrounding a city on which building is generally barred, usually large enough to form an adequate protection against objectionable uses of property or the intrusion of nearby development. A specific type of open space protection.

GROIN:
See *jetty*.

GROUND COVER:
Grasses or other plants grown to keep soil from being blown or washed away.

GROUND WATER:
Subsurface water occupying the zone of saturation. In a restricted sense, the term is applied only to water below the water table.

GULF:
A relatively large portion of the sea which penetrates into the interior of the land. In general, the entrance is wider than the length.

GUT:
A narrow, deep channel that is usually characterized by rapid currents.

HABITAT:
The sum total of environmental conditions of a specific place that is occupied by an organism, a population or a community.

HARBOR:
A protected part of a sea, lake or other body of water used by vessels as a place of safety and/or for the transfer of passengers and cargo between water and land carriers. The man-made facilities of a harbor are called a *port*.

IMPACT ASSESSMENT:
The evaluation of ecological effects to determine their impact on human needs as well as the impact on man-made developments.

INACTIVE GARBAGE DUMPS:
Old, inactive dumps, especially for private purposes, that may still contribute organic matter to runoff wastes.

INDUSTRIAL PARK; INDUSTRIAL ESTATE:
An area zoned and planned for various industrial uses and developed and managed as a unit, usually with provision for common services for the users.

INLET:
A natural channel between a large, parent body of water and a lagoon or bay. An arm of the sea or other body of water that is long compared to its width and that may extend a considerable distance inland.

INTERTIDAL AREA:
The area between high and low tide levels.

JETTY:
A structure such as a wharf or pier so located as to influence current or protect the entrance to a harbor or a river. A jetty built perpendicular to the coast and perpendicular to littoral currents to stop or deter beach erosion and which is solid from top to bottom is called a *groin*. A jetty which breaks the force of the sea at any place is called a *breakwater*.

LAGOON:
A relatively shallow body of water lying between a barrier beach and the mainland. Access to the ocean or lake is through cuts or natural passes.

LAND BANK:
A stockpile of publicly owned land; the result of a program under which a government buys land and holds it for future use as needed.

LANDFILL:
A site which is used as a dumping ground for various articles and waste products. See *sanitary landfill*.

LAND, IMPROVED:
Raw land that has been provided with sidewalks, water, sewers, and other basic facilities in preparation for residential or industrial development. It sometimes also describes land structures as well, but usually refers to land with utilities only; land with buildings and utilities would be called a *developed area*.

LAND, MARGINAL:
Land at the edge of, or surrounding, a city or metropolitan area; also, land of such poor quality or location that the cost of farming it or putting it to some other use is hardly covered by the expected returns.

LAND USE:

The delineation by a governing authority of the utilization to which land within its jurisdiction may be put so as to promote the most advantageous development of the community (such as designation of industrial, residential, commercial, recreational, and other uses under a master plan). *Coastal land use* means activities which are conducted in or on the shorelands within the coastal zone. The employment of a site or holding so as to derive revenue or other benefit from it.

LEACHATE:

Liquid that percolates through soil, gravel, solid waste and other landfills and extracts dissolved materials from it.

LEACHING:

The process by which soluble materials in the soil are dissolved and washed into a lower layer of soil or carried away.

LITTORAL:

Of or pertaining to a shore, especially of the sea. A coastal region which is sometimes restricted to areas between highest high tide and lowest low tide.

LONGSHORE CURRENT (LITTORAL CURRENT):

The resulting current produced by the interaction of sea waves, winds and marine topography. The current runs roughly parallel to the shoreline.

LOT:

The smallest unit of city building — the smallest subdivision of land or of a block in which cities are sectioned, its size varying with the locality. It may also describe a parcel of vacant land or one with a building or group of buildings in single ownership.

MANAGEMENT PROGRAM:

A comprehensive statement in words, maps, illustrations, or other media of communication, prepared and adopted by the state in accordance with the provisions of this title, setting forth objectives, policies, and standards to guide public and private uses of lands and waters in the coastal zone.

MANGROVE:

Any one of a variety of trees found in tropic and sub-tropic regions which are tolerant of salt water and grow along the coast, generally within or slightly above the intertidal region.

MARINA:
A dock or basin providing secure moorings for motorboats, yachts, and sailboats and often offering supply, repair and other facilities.

MARSH:
A tract of soft, wet or periodically inundated land, generally treeless and usually characterized by grasses and other low growth.

MARSH, SALT:
A marsh periodically flooded by salt water.

MEAN RIVER LEVEL:
The average height of the surface of a river at any point for all stages of the tide over a 19-year period, usually determined from hourly height readings. For charting purposes, tidal datums for rivers are usually based on observations during selected periods when the river is at or near low water stage.

MEAN SEA LEVEL (MSL):
The arithmetic mean of hourly sea level heights over a specific 19-year (epoch) series of observations. The epoch presently used by the National Ocean Survey is 1941-1959; it will be routinely revised at 25-year intervals.

Selected values of mean sea level serve as the datum for all elevation surveys in the United States.

MEANDER LINE:
A group of lines originally established by federal surveys of shoreline areas intended to coincide with the mean high water line. Lines were established for the purpose of locating shore lines of bodies of water. The meander line appears as a series of straight lines not necessarily reflecting actual legal limits of ownership boundaries in shoreline areas.

NEARSHORE (ZONE):
In beach terminology, an indefinite zone extending seaward from the shore line somewhat beyond the breaker zone. It defines the area of nearshore currents. The shoreface.

OFFSHORE SAND DEPOSIT:
A ridge or mound of sand submerged at least at high tide, usually found at the mouth of a river or estuary or lying a short distance from and parallel to the beach. See *bar*.

OFFSHORE OIL:
A petroleum deposit beneath the ocean floor.

OILSPILL:
The accidental discharge of oil into bays, inland waterways or the ocean. Methods of oil spill control include chemical dispersion, combustion, mechanical containment, and absorption.

OPEN SPACE:
That portion of the landscape which has not been built over.

OPEN WATER:
An expanse of water containing no islands or other barriers.

OUTFALL:
The vent of a river, drain, etc., at the point where the water is released.

OUTLET:
The opening by or through which any water discharges its content. The lower end of a lake or pond; the point at which a lake or pond discharges into the stream which drains it.

OVERTURN:
The exchange of position into fall and spring of bottom and upper waters in a lake, caused by density differences due to temperature changes.

OXIDATION POND:
A man-made lake or pond in which organic wastes are oxidated by bacterial action.

PARK:
An open area, usually landscaped or left in its natural state, intended for outdoor recreation and the general enjoyment of nature. The distinctive feature of a park, as opposed to other recreational areas, is the opportunity offered for passive recreation – sitting, walking, and watching.

PASS:
A natural channel through a barrier reef. Also a river's channel through its delta.

PERCOLATION:
Downward flow or infiltration of water through the pores or spaces of a rock or soil. When percolation removes minerals from the soil, it is known as leaching.

PIER:
An elongated structure perpendicular to the shoreline and extending into the water used as a berthing place for vessels to deliver and receive cargo and passengers. Piers are usually platforms resting on pilings driven into the sea bed.

POLLUTION:
The fouling of the air, water, or soil by the introduction of injurious or corrupting elements. Any material adversely affecting the natural environment is a pollutant. Noise and transgressions on aesthetics have also been included within the category of pollutants.

PORT:
A place provided with terminal and transfer facilities for loading and discharging cargo or passengers, usually located in a harbor. ***Deepwater ports*** areports located in water of a great enough depth for supertankers to enter and moor.

POTABLE WATER:
Water suitable for drinking or cooking purposes from both health and aesthetic considerations.

PRESERVATION:
Keeping an area from destruction. Protecting an area or its inhabitants from any adverse changes.

PUBLIC DOMAIN:
In the United States, all the lands owned at any time by government and subject to sale or other transfer or ownership under its laws, exclusive of land owned by individuals or other private interests. The federal or national domain is the total area under the operational jurisdiction of the government.

PUBLIC LANDS:
(1) The public domain of the United States; (2) reservations, other than Indian reservations, created from the public domain; (3) lands permanently or temporarily withdrawn, reserved, or withheld from private appropriation; (4) outstanding interests of the United States in lands patented, conveyed in fee or otherwise, under the public land laws; (5) national forests; (6) wildlife refuges and ranges; and (7) the surface and subsurface resources of all such lands under the control of the United States in the Outer Continental Shelf.

PUMP-STORAGE PLANT:
A hydro-electric generating facility operated by the flow of artificially elevated water.

RIA:
A long, narrow estuary whose depth gradually decreases inland. In certain parts of the U.S. Atlantic coast, rias are known as creeks.

RECEIVING WATERS:
Rivers, lakes, oceans, or other bodies that receive treated or untreated waste. waters.

RECLAMATION:
The measures undertaken to bring about the necessary reconditioning or restoration of land or water that has been altered or changed in ways which will prevent or control onsite and offsite damage to the environment.

RECREATION:
Any activity voluntarily undertaken for pleasure, fun, relaxation, exercise, self-expression, or release from boredom, worry, or tension; that which is physically or psychologically rejuvenating because it is apart from the essential routines of one's life.

RIP CURRENT:
A narrow intense current setting seaward through the surf zone which removes the excess water brought to the zone by the small net mass transport of waves. Rip currents are fed by longshore currents. They usually occur at points, groins, jetties, etc. of irregular beaches and at regular intervals along straight, uninterrupted beaches.

RIPARIAN:
Pertaining to the banks of a body of water.

RIPARIAN RIGHTS:
Rights of a land owner to the water on or bordering his property, including the right to prevent diversion or misuse of upstream water.

RIVER BASIN:
The total area drained by a river and its tributaries.

RUNOFF:
The portion of rainfall, melted snow or irrigation water that flows across the ground surface and eventually is returned to streams.

SALINITY:
A measure of the quantity of dissolved salts in sea water.

SALT FRONT:
The inland limit of measurable salt (0.5 ppt) in an estuary at any given time.

SALT WATER:
Ocean water with a salinity of 34 parts per thousand or more.

SALT WATER INTRUSION:
A movement of salt water inland into fresh water aquifers.

SAND:
Grains smaller than .16 (1/6) of an inch in diameter and larger than silt.

SANITARY LANDFILL:
A site for solid waste disposal where waste is spread in thin layers, compacted to the smallest practical volume and covered with soil at the end of each working day.

SEA BREEZE:
The breeze that blows from the sea to the land on many coasts from midmorning to sunset on sunny days in summer. After sunset it may be succeeded by a land breeze blowing from land to sea.

SEDIMENTATION:
The process of gravitational deposition of soil and other particles transported by water.

SEPTIC TANK:

A receiving tank plus a leaching pit in which waste matter is purified and decomposed through bacterial action. Unlike cesspools, septic tanks may be acceptable sanitary systems for low-density development depending on soil conditions.

SEWAGE:

Liquid or water-borne wastes which usually create BOD generated within residences, business establishments, institutions, and industrial buildings or as by-products of any residential, commercial, industrial, social, agricultural, or municipal activity. There are 4 steps in sewage treatment:

Pretreatment: In waste water treatment, any process used to reduce pollution load before the waste water is introduced into a main sewer system or delivered to a treatment plant for substantial reduction of the pollution load.

Primary treatment: The first stage in waste water treatment in which substantially all floating or settleable solids are mechanically removed by screening and sedimentation.

Secondary treatment: The second stage of waste water treatment in which bacteria consume the organic parts of the wastes. This biochemical action is accomplished by use of trickling filters or the activated sludge process. Effective secondary treatment removes virtually all floating and settleable solids and approximately 90 percent of both BOD, and suspended solids. Chlorination is the final stage of the secondary treatment process.

Tertiary treatment: Waste water treatment beyond the secondary or biological stage that includes removal of nutrients such as phosphorus and nitrogen, noxious chemicals and a high percentage of suspended solids. Tertiary treatment, also known as advanced waste treatment, produces a high quality effluent.

SEWER:

Any pipe or conduit used to collect and carry away sewage or storm water runoff from the generating source to treatment plants or receiving streams.

SHOAL:

Shallow part of a water basin.

SHORE:

That strip of ground bordering any body of water which may be alternately exposed, or covered by tides and waves and usually extends above that area. A shore of unconsolidated material is usually called a ***beach***.

SHORELANDS:
The terrain of the coastal watershed down to the upper margin of the wetlands (lower margin of coastal floodplain).

SHORELINE:
The intersection of a specified plane of water with the shore. The line delineating the shoreline on National Ocean Survey nautical charts and surveys is the mean high-water line except in areas of vegetation where it is apparent at the outer limits of vegetation.

SILT:
Fine particulate matter which is between sand and clay in size.

SPIT:
A long, narrow sand bar, exposed at all tides, with one end attached to land. Spits usually bend landward at the unattached end.

SPOIL:
Dredged materials.

SPOIL BANK:
An elongated mound of material dredged from a harbor or waterway usually located along the shore of the waterway.

SPOIL ISLAND:
A man-made island of material dredged from the bottom of the surrounding body of water.

STAGNANT WATER:
Motionless water in containers, low areas, and specifically in catch basins along streets which often serves as a breeding place for bacteria and insects.

STORM SURGE:
The piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm. Reduced atmospheric pressure is often a contributing factor in hurricanes. These are potentially catastrophic.

STRATIFIED ESTUARY:
An estuary with two or more distinct water layers caused by salinity or temperature-induced density differences. Usually a wedge of salt water flows upstream along the bottom and fresh water flows out along the surface.

SUBAQUEOUS:
Below the water surface. Generally anything that goes on totally in water having no contact with the air.

SUBDIVISION CONTROL:
The legal regulations governing the manner in which land can be subdivided into lots and provided with the basic services of roads, transportation, water and sewage.

SUMP:
A depression or tank that serves as a drain or receptacle for liquids for salvage or disposal.

SWAMP:
An area, partially or completely under water, that supports a growth of vegetation.

TERRITORIAL SEA:
State waters reaching seaward three nautical miles.

TIDAL BASIN:
A nearshore area separated from the open water by a bar or ridge (tidal bar) but still affected by tidal forces.

TIDAL FLAT:
A flat, soggy area which emerges during low tide, that is characterized by the simultaneous deposition of clay and sand by tidal waters.

TIDAL RIVER:
The tidally influenced portion of a coastal river.

TIDAL WAVE:

The front of an incoming tide. A shallow water wave caused by the gravitational interactions between the sun, moon and earth. The term tidal wave is often incorrectly applied to tsunamis. See *tsunami.*

TIDE:

The periodic rising and falling of the water. Although the accompanying horizontal movement of the water, resulting from the same cause, is also sometimes called the tide, it is preferable to designate the latter as *tidal current*, reserving the name *tide* for the vertical movement.

Neap tide: Tides of decreased range or tidal currents of decreased velocity occurring semimonthly as the result of the moon being in its 1st or last quarter.

Rip tide: Properly called *rip current.* See *rip current.*

Spring tide: Tides of increased range or tidal currents of increased velocity occuring semi-monthly as a result of the moon being new or full.

TIDEWATER:

Water affected by tides or sometimes that part of it which covers the tideland. The term is sometimes used broadly to designate the seaboard.

TURBIDITY:

Suspended matter which reduces water clarity.

TSUNAMI:

A seismic sea wave. Tsunamis are caused by earthquakes on the ocean floor. The resulting waves are 60 to 120 miles in length and 50 to 100 feet in height. They hit the shore with extreme force. Tsunamis are sometimes mistakenly called tidal waves. See *tidal waves.*

UNDERTOW:

The subsurface, seaward-flowing current occurring when waves break on a shore.

UPRUSH:

The powerful surge of a wave causing a landward movement of sand and gravel onto the beach.

VEGETATION LINE:
The line marking the end of vegetation.

VITAL AREA:
A physical component, or feature, of such extreme importance to the functioning of an ecosystem that it requires complete preservation.

WATER LEVEL:
The surface of still water; the level assumed by the surface of a body of water. There are various water levels in tidal waters. These follow:

High water (HW): The maximum height reached by a rising tide.

High water line: Strictly, the intersection of the plane of mean high water with the shore. The shoreline delineated on the nautical charts of the National Ocean Survey is an approximation to the high water line.

Higher high water (HHW): The higher of the two high waters of any tidal day. The single high water occurring daily during periods when the tide is diurnal is considered to be a higher high water. *Mean higher high water (MHHW)* is the average height of the higher high waters over a 19-year period. For shorter periods of observations, corrections are applied to eliminate known variations and reduce the result to the equivalent of a mean 19-year value.

Higher Low Water (HLW): The higher of the two low waters of any tidal day. where there are two tides.

Low water (LW): The minimum height reached by a falling tide.

Low water line: The intersection of any standard low tide datum plane with the shore.

Lower high water (LHW): The lower of the two high waters of any tidal day where there are two tides.

Lower low water (LLW): The lower of the two low waters of any tidal day. The single low water occurring daily during periods when the tide is diurnal is considered to be a lower low water. *Mean lower low water (MLLW)* is the average height of the lower low waters over a 19-year period. For shorter periods of observations, corrections are applied to eliminate known variations and reduce the result to the equivalent of a mean 19-year value.

Mean high water (MHW):
The average height of the high waters over a 19-year period. For shorter periods of observations, corrections are applied to eliminate known variations and reduce the result to the equivalent of a mean 19-year value.

Mean low water (MLW):
The average height of the low waters over a 19-year period. For shorter periods of observations, corrections are applied to eliminate known variations and reduce the result to the equivalent of a mean 19-year value.

WATERSHED:
A region or area bounded peripherally by a water parting and draining ultimately to a particular body of water. The area drained by a given stream.

WATER TABLE:
A plane in the soil separating a zone of saturation from one of under-saturation.

WATER USE:
Activities which are conducted in or on the water; but not including the establishment of any water quality standard or criteria or the regulation of the discharge or runoff of water pollutants.

WETLANDS:
Naturally vegetated areas located between mean high water and the yearly normal maximum flood water level. Wetlands are those land and water areas subject to regular inundation by tidal, riverine, or lacustrine flowage. Generally included are inland and coastal shallows, marshes, mudflats, swamps, and similar areas in coastal and inland navigable waters.

WHARF:
A structure serving as a berthing place for vessels. A wharf approximately parallel to the shoreline and accommodating ships on one side only is called a *quay*. A wharf extending into the water and accommodating ships on both sides is called a *pier*. See *dock, jetty, pier.*

WHITECAPS:
The tops of breakers. Strong winds blowing on-shore across the whitecaps produce spindrift.

ZONE, TRANSITION:

A zoning designation intended to guide the orderly conversion of an area from one predominant use to another, usually residential to higher-density residential and commercial. As the downtown expands, transition zones are often created at the margin of central business districts where large old single-family homes are being converted to apartments, businesses, or professional offices.

ZONING:

In general, the demarcation of a local government by ordinance into zones and the establishment of regulations to govern the use of the land (commercial, industrial, residential, type of residential, etc.) sometimes including the location, bulk, height, shape, use, and coverage of structures within each zone.

ZONING, PERFORMANCE STANDARD:

Regulations providing general criteria for determining the acceptability of certain industrial, land uses, and buildings as distinguished from specification standards or detailed requirements. For example, instead of grouping industries in ordinances under the headings "light," "heavy," or "unrestricted," technological measurements are made. For the terms "limited," "substantial," "objectionable," and "offensive," specified measurements are provided to determine the rating of a particular use.

APPENDIX D

LISTING OF STATE AND LOCAL OFFICIALS INTERVIEWED

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MICHIGAN

William Smith	Director, Department of Planning	City of Detroit
Bill Cilluffo	Administrative Assistant, Office of the Mayor	City of Detroit
George Kiba	Greater Detroit Chamber of Commerce	
Bernard Hanus	Administrator, Board of Auditors	Wayne County
James Curran	Director, Program Development	Wayne County
Mike Glusak	Executive Director	S.E. Michigan Council of Governments
Bill Bradford	Assistant Division Chief, Water Development Services Division	Michigan Department of Natural Resources
William Walsh	Director, Shoreline Management Division	Michigan Department of Natural Resources
John Beck	Intergovernmental Relations Office	State of Michigan
Frank Bennett	Director	Wayne County Planning Commission

LOUISIANA

Harold Katner	Director, Planning Department	City of New Orleans
Emmett Moten	Director of Policy Planning	City of New Orleans
Tom Schneidalbach	Chief Planner	Regional Planning Commission
Guy LeMieux	President	Levee Board
Mark J. Hershman	Urban Planning Department	Louisiana State University
William Gallegos	Director, Comprehensive Planning	Louisiana Commission on Intergovernmental Relations

FLORIDA

Merritt Steveheim	County Administrator	Pinellas County
Picot Floyd	City Manager	City of Clearwater
Bruce Johnson	Director, Coastal Coordination Council	State of Florida
Harmon Shields	Director, Department of Natural Resources	State of Florida
Scott Wilson	Director	Tampa Bay Regional Planning Commission

MAINE

Philip Savage	Director, State Planning Office	State of Maine
Ronald Poitras	Supervisor, Coastal Planning Division State Planning Office	State of Maine
Ed Langlois	Director of Waterways, Department of Transportation	State of Maine
Richard Choate	Deputy Commissioner, Department of Natural Resources	State of Maine
Phil Goggins	Planner, Department of Natural Resources	State of Maine
Gerald Holtenhoff	Assistant Director, City Planning Department	City of Portland
Donald Horton	Director, TRIGOM	Southern Maine VTI
Osmond Bonsey	Executive Director	Portland Council of Governments
Joe Ziepniewski	Planning Director	Portland Council of Governments
Arthur Charles	Commissioner	Cumberland County
Ralph Amergian	Commissioner	Cumberland County

WASHINGTON

John A. Biggs	Director, Department of Ecology	State of Washington
Rodney Mack	Office of Planning and Program Development	State of Washington
Raymond E. Card	Shoreline Coordinator	Washington State Association of Counties
John Spellman	County Executive	King County
John Lynch	Director, Department of Budget and Program Planning	King County
David Clark	Manager, Shoreline Program	King County
Ralph Domenowske	Research Coordinator	Municipality of Metropolitan Seattle
Peter Machno	Manager, Planning Services	Municipality of Metropolitan Seattle
Arthur Yoshioka	Director of Planning and Research	Seattle Port Authority
Keith McCormac	Environmental Affairs Specialist	Seattle Port Authority
Ron McConnell	Director, Land Use and Environmental Planning	Puget Sound Government Conference
Robert F. Hintz	Director, Office of Environmental Management	City of Seattle

CALIFORNIA

Norman Magnuson	Deputy Director, Department of Sanitation and Flood Control	
Michael Aulick	Senior Regional Planner	Comprehensive Planning Organization of the San Diego Region
Joseph E. Bodevitz	Executive Director	California Coastal Zone Conservation Commission
Thomas A. Crandall	Executive Director	San Diego Regional Coastal Commission
Paul L. Clifton	Project Manager	California Resources Agency
Allan Colman	Administrator, Environmental Development Agency	San Diego County
Bruce Warren	Planning Director	San Diego County
Cordelia Ridenour	Assistant Director, Environmental Quality Department	City of San Diego
Don Nay	Executive Director	San Diego Unified Port District

DELAWARE

Peter Morrow	Director of Commerce	Port of Wilmington
Patricia Schramm	Director of Planning and Development	City of Wilmington
John V. Flynn	Administrative Assistant to the Mayor	City of Wilmington
David Keifer	Director, Delaware Planning Office	State of Delaware
James Page	Planning Supervisor, Water Resources Section, Department of Natural Resources and Environmental Control	State of Delaware
Melvin A. Slawik	County Executive	New Castle County
Henry Fulsom	Chairman	New Castle County Council
Myrna Hurd	Director, Water and Sewer Office	New Castle County

COASTAL ZONE
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